SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:
Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization, or compensatory mitigation measures will address the probable significant impacts, or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants: [help]
This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use “not applicable” or “does not apply” only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies and/or reports. Complete and accurate answers to these questions often avoid delays with the SEPA process, as well as later in the decision-making process.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Instructions for Lead Agencies:
Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal, and an analysis of adverse impacts. The checklist is considered the first, but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals: [help]
For nonproject proposals (such as ordinances, regulations, plans, and programs), complete the applicable parts of sections A and B, plus the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). Please completely answer all questions that apply and note that the words “project,” “applicant,” and “property or site” should be read as “proposal,” “proponent,” and “affected geographic area,” respectively. The lead agency may exclude (for nonprojects) questions in Part B (Environmental Elements) that do not contribute meaningfully to the analysis of the proposal.
A. BACKGROUND [help]

1. Name of proposed project, if applicable: [help]
   Preferred Freezer/ Orca Bay Site Development

2. Name of applicant: [help]
   Chill Build Seattle, LLC

3. Address and phone number of applicant and contact person: [help]
   6831 E 32nd St.
   Indianapolis, IN 46226
   317-491-5434

4. Date checklist prepared: [help]
   June 15, 2016
   Revised August 8, 2016

5. Agency requesting checklist: [help]
   City of Federal Way

6. Proposed timing or schedule (including phasing, if applicable): [help]
   Commercial Grade & Fill work to occur Summer 2016
   Construction of warehouse so begin Summer- Fall 2016

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. [help]
   After the Process III land use review is complete and approval is granted, the applicant plans on constructing the 314,424 g.s.f. warehouse, office space and associated parking and infrastructure. No additional expansion or further activity is proposed after construction.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. [help]
   • Critical Areas Report for Preferred Freezer/ Orca Bay that includes the following:
     a. Geotechnical report;
     b. Wetland delineation;
     c. Wetland mitigation plan.
   • Level One Downstream storm drainage analysis pursuant to KC SWDM
   • Preliminary technical information report addressing relevance of the 9 Core and 5 Special Requirements of 2016 King County Surface Water Design Manual.
   • Traffic impact analysis
   • JARPA (to be prepared)

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain. [help]
   An application for a Boundary Line Adjustment that includes the parcel of this proposal has been submitted and will be processed concurrently with this application.
10. List any government approvals or permits that will be needed for your proposal, if known. [help]  

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.) [help]  
Site development and construction approvals for a 314,424 g.s.f building, including warehouse, office and food processing space, for Preferred Freezer and Orca Bay Seafoods, on a 19 acre site within the CP-1 zone.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist. [help]  
Site Address: 337XX Weyerhaeuser Way S Federal Way, WA 98003  
Located at the intersection of Weyerhaeuser Way S and 33rd Place S.  
Parcel numbers: A portion of 614260-0005 and 6142600200, Pending BLA (FW File No. 16-102886-00-SU)  
Legal Description: [prior to Boundary Line Adjustment] NORTH LAKE ADD TO EAST TACOMA VAC-ALL BLK 1 & LOTS 1-2-3 & 30 THRU 36 OF BLK 2 & ALL OF BLKS 8-9-10-17 & LOTS 19 THRU 36 OF BLK 18 TGW POR OF VAC ST ADJ LESS STS & PORS VAC STS & ALLEYS ADJ

B. ENVIRONMENTAL ELEMENTS [help]

1. Earth  
   a. General description of the site [help]  
      (underline/circle one): Flat, rolling, hilly, steep slopes, mountainous, other______________________  
      Somewhat undulatory with a general downward slope to the east.

   c. What is the steepest slope on the site (approximate percent slope)? [help]  
      ±15%

   e. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils. [help]  
      Weathered (medium dense) glacial till and unweathered (dense to very dense) glacial till. Generally silty sand with gravel.

   g. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. [help]  
      None

   e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill. [help]  
      Cuts in the west and fills in the east will be completed to create a level development pad. A small portion of structural fill material may be imported for the building foundation. On-site material will be used for general fill. Quantities are as follows: Cut quantities 87,779 cubic
yards, fill quantities 90,033 cubic yards and a total net fill of 2,254 cubic yards. The source of clean, imported fill will be determined by the contractor.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. [help]
   Erosion could occur as a result of clearing and construction, particularly if earthwork is completed during periods of rainfall. TESC measures will be implemented as approved by the City prior to construction.

g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? [help]
   ±69% (567,820 square feet)

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: [help]
   The owner will institute an erosion control plan to be used during earthwork and construction.

2. Air

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known. [help]
   Some heavy machinery exhaust and dust particulates generated primarily by construction equipment.

b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe. [help]
   No

c. Proposed measures to reduce or control emissions or other impacts to air, if any: [help]
   All construction equipment will be in proper working order and regulated for emissions by the manufacturer and local emissions laws. Vehicles entering and leaving the site will also be regulated for emissions by state and local emissions laws. During construction the site will be watered as necessary to keep any dust from impacting surrounding air quality.

3. Water

a. Surface Water [help]

   1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into. [help]
      There are no fish-bearing or perennial streams on or near the site. Beginning from wetland WC, there is a man-made ephemeral ditch, unnamed that flows into wetland DR, does not continue. See attached Wetland report for more details. 8 onsite wetlands, and 1 wetland offsite to the south. Onsite Wetlands: DQ (PSS), DR (PSS), DT (PSS), EB (PFO/PSS), ED (PFO), EE (PSS), and EF (PFO). Offsite wetland: EC (PSS). All wetlands ultimately discharge to Hylebos Creek to the south.

   2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans. [help]
      Yes, work adjacent to the ditch is proposed- ±7,831 square feet of proposed direct impacts (fill) to wetlands EB, ED, EE, and EF. Wetlands DQ, DR, and DT will not be impacted. See attached work plans and report for more details.
3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material. [help] 
*Total wetland fill to equal ±435 cubic yards*

4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. [help] 
No

5) Does the proposal lie within a 100-year floodplain? If so, note the location on the site plan. [help] 
No

6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge. [help] 
No

b. Ground Water

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses, and approximate quantities withdrawn from the well. Will water be discharged to groundwater? Give general description, purpose, and approximate quantities if known. [help] 
No

2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: domestic sewage; industrial containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve. [help] 
N/A

c. Water runoff (including stormwater):

1) Describe the source of runoff (including stormwater) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe. [help] 
*Run-off from impervious surfaces will be collected and directed into on-site stormwater detention pond. Once detained and treated for water quality, the storm water will be released to the downstream system, including the off-site wetlands.*

2) Could waste materials enter ground or surface waters? If so, generally describe. [help] 
Not as proposed

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. 
*No - discharge will occur at the natural location.*

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: 
The project contractors, users, and personnel will utilize onsite Best Management Practices. Attached drainage plans show runoff from impervious surfaces will be directed to on site stormwater detention pond.
4. Plants [help]

a. Check the types of vegetation found on the site: [help]
   
   _X_ deciduous tree: alder, maple, aspen, other
   _X_ evergreen tree: fir, cedar, pine, other
   _X_ shrubs
   ___ grass
   ___ pasture
   ___ crop or grain
   ___ orchards, vineyards, or other permanent crops
   _X_ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
   ___ water plants: water lily, eelgrass, milfoil, other
   ___ other types of vegetation

b. What kind and amount of vegetation will be removed or altered? [help]
   Native
   
   **Native trees and shrubs will be removed during site construction. 4 of 7 on-site wetlands will be filled; 3 wetlands and adjacent buffers of native trees and shrubs will remain.**

c. List threatened and endangered species known to be on or near the site. [help]
   
   No native threatened and endangered plant species observed or known to occur on or near the site.

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any. [help]
   Buffer enhancement of native plants will be done as needed.

e. List all noxious weeds and invasive species known to be on or near the site.
   Himalayan blackberry, English ivy, English holly

5. Animals

a. List any birds and other animals which have been observed on or near the site, or are known to be on or near the site. Examples include: [help]
   
   birds: hawk, heron, eagle, songbirds, other: 
   mammals: deer, bear, elk, beaver, other: rabbits, squirrels
   fish: bass, salmon, trout, herring, shellfish, other

   No fish

b. List any threatened and endangered species known to be on or near the site. [help]
   
   **Bald Eagle nest documented ±1,500 feet east of site, none on-site.**

c. Is the site part of a migration route? If so, explain. [help]
The entire region is known to be part of the Pacific Flyway. The Pacific Flyway includes Alaska and the Aleutian Islands and the Rocky Mountains and Pacific coast regions of Canada the United States and Mexico, south to where it becomes blended with other flyways in Central and South America. However, the site is not known to be used by migratory fowl.

d. Proposed measures to preserve or enhance wildlife, if any. [help]
   Preservation of remaining wetlands and adjacent uplands - a corridor will be provided between preserved wetlands and a 50'-wide forested buffer will be provided along Weyerhaeuser Way S.

e. List any invasive animal species known to be on or near the site.
   Bullfrog

6. Energy and Natural Resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project’s energy needs? Describe whether it will be used for heating, manufacturing, etc. [help]
   Electrical energy will be the primary source of power serving the project. Natural gas maybe used to satisfy incidental energy needs.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe. [help]
   No, the proposed building height will not exceed 70 feet above grade. No existing development utilizes solar energy in proximity to which the shadow cast from the building has any effect.

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any. [help]
   No plans included in the Commercial grade & Fill Permit. Energy conservation will be addressed in the building permit documents.

7. Environmental Health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste that could occur as a result of this proposal? If so, describe. [help]
   None known.

1) Describe any known or possible contamination at the site from present or past uses.
   None known.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.
   None known.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project’s
development or construction, or at any time during the operating life of the project. The following chemicals will be stored at the proposed warehouse/production floor. The safety data sheets have been included as attachments to this Environmental Checklist. Sanite 75 - Sanitizer, Multi-Chlor - UHMW Boards-Cleaner, Keeper- Crab Line Sanitizer, Formula EW-Drain Cleaner/ Degreaser, Detsol CWF- Detergent Cleaner, Chlor Cling 937 – detergent cleaner, Biosol 40 – Drain Cleaner / degreaser, Activator P-35 FG - Additive to Keeper.

4) Describe special emergency services that might be required.
   None anticipated

5) Proposed measures to reduce or control environmental health hazards, if any.
   State regulations regarding safety and the handling of hazardous materials will be followed during the construction process. Equipment refueling areas would be located in areas where spill could be quickly contained and where the risk of hazardous materials entering surface water is minimized.

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? [help]
   The primary source of noise near the project site is from vehicular traffic along Weyerhaeuser Way S and Hwy-18. It is not anticipated to materially impact the proposed project in any way.

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site. [help]
   Short-term impacts would result from the use of construction equipment during the site development. Construction would occur during permitted construction hours and always in compliance with the City of Federal Way noise regulations. Long-term impacts would be those vehicular trips associated with the warehouse. Noise generated from the proposed warehouse and office operations is not expected to impact surrounding properties.

3) Proposed measures to reduce or control noise impacts, if any: [help]
   Construction activity will be limited to permitted construction hours and construction equipment will not be allowed to idle for continuous periods of time, which will help mitigate the impacts of potential construction noise.

8. Land and Shoreline Use

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe. [help]
   The property is zoned as Corporate Park but the project site is primarily vacant with small areas used for landscape material storage. Pedestrian trails meander through the site.

   North- Corporate Park
   East- Single Family Residential
   West- Corporate Park
   South- Corporate Park
The proposed development may have a minor, long term impact with respect to the additional traffic of deliveries and employee trips.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use? [help]
No

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how.
   No impact.
The site exists on land previously owned by Weyerhaeuser Company and used for corporate headquarters for many years.

c. Describe any structures on the site. [help]
   None

d. Will any structures be demolished? If so, what? [help]
   No

e. What is the current zoning classification of the site? [help]
   Corporate Park- 01

f. What is the current comprehensive plan designation of the site? [help]
   Corporate Park

g. If applicable, what is the current shoreline master program designation of the site? [help]
   N/A

h. Has any part of the site been classified as a critical area by the city or county? If so, specify. [help]
   Yes, site reconnaissance conducted by Talasaea resulted in discovery of 8 wetlands on the proposed project site. A copy of the wetland delineation report was submitted with this environmental checklist and is available upon request.

i. Approximately how many people would reside or work in the completed project? [help]
   Approximately 300 people would work at the completed project

j. Approximately how many people would the completed project displace? [help]
   None

k. Proposed measures to avoid or reduce displacement impacts, if any. [help]
   N/A
1. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any. [help]
   The project will be developed in accordance with applicable City of Federal Way development and land use codes and the approved Annexation and Concomitant Agreement to ensure the project is consistent with the goals and policies of the Comprehensive Plan and applicable Development Regulations.

m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any.
   None proposed

9. Housing
   a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. [help]
      N/A
   b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing. [help]
      N/A
   c. Proposed measures to reduce or control housing impacts, if any. [help]
      N/A

10. Aesthetics
   a. What is the tallest height of any proposed structure(s), not including antennas, what is the principal exterior building material(s) proposed? [help]
      +/- 68 feet 1-story, concrete cast formed walls or blocks
   b. What views in the immediate vicinity would be altered or obstructed? [help]
      Currently forested. Views impacted would be viewing SW from 33rd Pl S, viewing E from Weyerhaeuser head quarters parking lot. There is a 50' forested buffer that runs along Weyerhaeuser Way S.
   c. Proposed measures to reduce or control aesthetic impacts, if any. [help]
      Maintain required 50' forested buffer along Weyerhaeuser Way S

11. Light and Glare
   a. What type of light or glare will the proposal produce? What time of day would it mainly occur? [help]
      Parking lot lighting would occur dusk through dawn at completed project. Minimal glare would occur from sunlight reflected off parked cars. Additionally, the headlights of traveling vehicles would occur any time of day.
   b. Could light or glare from the finished project be a safety hazard or interfere with views? [help]
c. What existing off-site sources of light or glare may affect your proposal? [help]

None

d. Proposed measures to reduce or control light and glare impacts, if any.
N/A

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity? [help]

Pedestrian hiking trails meander through property

b. Would the proposed project displace any existing recreational uses? If so, describe. [help]

Yes, the trails will be covered by the proposed site development.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any. [help]

A continuous sidewalk will be installed along Weyerhaeuser Way S which will provide for pedestrian connectivity to the north.

13. Historic and cultural preservation

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers located on or near the site? If so, specifically describe. [help]

The Weyerhaeuser Headquarters building was constructed in 1969 which makes it 47 years old. Pursuant to CFR 36, Chapter I, subsection 60.4 criteria for evaluation, the Weyerhaeuser Headquarters building may be eligible; however, it has not achieved significance in the past 50 years.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources. [help]

No known landmarks or evidence have been observed on or near the site. The northern portion of the site was previously developed as single-family homes in the 1950's.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc. [help]

The methods used to assess the potential impacts included GIS data analysis and WISAARD GIS data review.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.
If any such historic or cultural evidence is encountered during construction or installation of improvements, work will be halted in the area and a state-approved archeologist/historian will be engaged to investigate, evaluate and/or move or curate such resources, as appropriate.
14. Transportation

a. Identify public streets and highways serving the site or affected geographic area and describe proposed access to the existing street system. Show on site plans, if any. [help]

The project site is primarily served by Weyerhaeuser Way S, north of Highway 18. There are 2 access points proposed; the southern access located several hundred feet north of Highway 18 would provide access for trucks and a small number of employees (Preferred Freezer). The northern access would serve employees and visitors (Orca Bay Seafoods) and would occur at the existing roundabout on Weyerhaeuser Way S intersecting with 33rd Place S.

b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop? [help]

Yes, the site is serviced by Pierce County Transit route 501 with 2 stops along the property frontage on Weyerhaeuser Way S.

c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? [help]

The proposed project will add 331 car stalls of which 278 are standard size and 53 are compact. Additionally, there will be 35 trailer stalls.

Will the proposal require any new or improvements to existing roads, streets, pedestrian, bicycle, or state transportation facilities, not including driveways? If so, generally describe (indicate whether public or private). [help]

Development of the project will not require any new roads, but will include frontage improvements along Weyerhaeuser Way S with sidewalks.

d. Will the project or proposal use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe. [help]

Not expected.

e. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and non-passenger vehicles). What data or transportation models were used to make these estimates? [help]

The proposed development is estimated to generate a total of about 750 vehicle trips per day, with 74 generated during the AM peak hour, and 99 during the PM peak hour. These estimates were made using trip rates from the ITE Trip Generation Manual based on a project with ±250,000 sf high-cube warehouse/distribution, ±36,000 sf manufacturing/processing, and ±24,000 sf corporate office headquarters.

Trucks traffic is anticipated to represent about 25 percent of the total daily vehicle trip generation of the project.

f. Will the proposal interfere with, affect, or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

Not expected.

g. Proposed measures to reduce or control transportation impacts, if any. [help]

Payment of the City’s transportation impact fee is expected, which will help fund City-wide transportation improvements.
15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, health care, schools, other)? If so, generally describe. [help]
The completed warehouse facility would result in an slight increased need for public services to include fire protection, police protection, and health care.

b. Proposed measures to reduce or control direct impacts on public services, if any. [help]
The increased demand will be offset by impact fees, levies, and taxes required to be paid by the applicant as part of this development. Also the proposal has been designed in a manner that will provide adequate access for fire, medic, and police vehicles.

16. Utilities

a. Underline/circle utilities currently available at the site: [help]
   electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other

   The above listed utilities are either available on-site or will be extended as necessary to serve the site.

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed. [help]
   Lakehaven Utility District will provide water and sewer connection.
   Puget Sound Energy will supply electricity and gas
   Telephone: Century Link, Verizon, Comcast
   Fire Protection: South King Fire & Rescue

C. SIGNATURE [help]

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: __________________________

Printed Name of Signee: Eric G. Hubbard


Date Submitted: 8·8·2014
D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS [help]

(IT IS NOT NECESSARY to use this sheet for project actions.)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

   Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

   Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

   Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

   Proposed measures to protect such resources or to avoid or reduce impacts are:
5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.
SAFETY DATA SHEET
SANITE 75

SECTION 1- PRODUCT IDENTIFICATION

PRODUCT NAME: SANITE 75
SYNONYMS: Product is a mixture: No synonyms are available
PRODUCT USE: PH Neutral Material
SUPPLIER: Wesmar Co. Inc.
SUPPLIER'S ADDRESS: 5720 204TH ST SW, LYNNWOOD, WA 98036
(206) 783-5344
EMERGENCY RESPONSE PHONE: PERS: 1-800-633-8253

SECTION 2 – HAZARD IDENTIFICATION

GHS – US CLASSIFICATION:
- H320 Causes eye irritation Category 2B
- H302 Harmful if swallowed Category 4

HAZARD PICTOGRAMS:

SIGNAL WORD: WARNING
GHS LABEL ELEMENTS: The product is classified and labeled according to the Globally Harmonized System (GHS).
GHS PHYSICAL HAZARDS:
- H320 Causes eye irritation
- H302 Harmful if swallowed

PRECAUTIONARY STATEMENTS (GHS-US):
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P301+ IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- P312 IF ON SKIN: Wash with plenty of soap and water.
- P305+35 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P338 Contact lenses, if present and easy to do. Continue rinsing.
- P337+35 If eye irritation persists: Get medical advice/attention.
- P352
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations

OSHA HAZARDS: Not applicable.
TARGET ORGANS: Not applicable.
CLASSIFICATION SYSTEM: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA RATINGS (SCALE 0-4):
- Health = 2, Fire = 0, Reactivity = 0
HMIS RATINGS (SCALE 0-5):
- Health = 2, Fire = 0, Reactivity = 0

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTIC DESCRIPTION: Mixtures
- Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENT</th>
<th>CAS #</th>
<th>EC #</th>
<th>GHS CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl dimethyl benzyl ammonium chloride</td>
<td>3.000</td>
<td>68424-85-1</td>
<td>Not Established</td>
<td>Acute Oral Tox. Cat 4, Skin Irr. Cat 4</td>
</tr>
<tr>
<td>Octyl Decyl dimethyl ammonium chloride</td>
<td>2.250</td>
<td>32426-11-2</td>
<td>Not Established</td>
<td>Acute Oral Tox. Cat 4, Skin Irr. Cat 4</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
SANITE 75

Dioctyl dimethyl ammonium chloride 1.125 5538-94-3 Not Established Acute Oral Tox. Cat 4, Skin Irr. Cat 4
Didecyl dimethyl ammonium chloride 1.125 7173-51-5 Not Established Acute Oral Tox. Cat 4, Skin Irr. Cat 4
Ethanol < 1 64-17-5 200-578-6 STOT SE Cat 2
Free Amine < 1 Confidential N/A Not Found

Irrit = Irritation, Corr = Corrosion, Cat = Category, Dam = Damage, Tox = Toxic, STOT SE = Specific Target Organ Toxicity
Single Exposure, Also contains non hazardous biodegradable surfactant(s).

SECTION 4 – FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES
GENERAL : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. Show the label where possible.
EYE CONTACT : Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. If irritation persists, get immediate medical attention.
SKIN CONTACT : Remove contaminated clothing and shoes. Wash affected skin area with soap and water. If irritation occurs, get medical attention.
SWALLOWING (INGESTION) : If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.
INHALATION : Remove to fresh air. If symptoms persist, get medical attention.
OTHER INSTRUCTIONS : Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Dry chemical, foam, water or carbon dioxide.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS : In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved, positive pressure, self-contained breathing apparatus (SCUBA) and full protective clothing. Evacuate all non-essential personnel from the danger area. Use water spray to cool nearby containers.
UNUSUAL FIRE AND EXPLOSION HAZARDS : No further relevant information is available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES : Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.
ENVIRONMENTAL PROCEDURES METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP : Keep spilled material away from sewage/drainage systems and waterways.
All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Use with adequate ventilation. Wear proper protective equipment. Do not mix with water or acids without proper dilution and agitation to prevent a potentially violent reaction.
CONDITIONS FOR SAFE STORAGE : Store in closed, properly labeled containers. Protect containers from heat, physical damage, ignition sources and incompatible materials. Have emergency equipment
SAFETY DATA SHEET
SANITE 75

for fires and spills readily available.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE) : The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL – TWA</th>
<th>ACGIH – TLV</th>
<th>ACGIH – STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alky dimethyl benzyl ammonium chloride</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Octyl Decyl dimethyl ammonium chloride</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Dioctyl dimethyl ammonium chloride</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Didecyl dimethyl ammonium chloride</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Ethanol</td>
<td>1000 ppm</td>
<td>100 ppm</td>
<td>1250 ppm</td>
</tr>
<tr>
<td>Free Amine</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

EYE PROTECTION : Wear chemical safety glasses or goggles.

SKIN PROTECTION : Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION : In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION : Ensure adequate ventilation.

ADDITIONAL MEASURES : Emergency eyewash and safety shower facilities should be available in the immediate work area.

REQUIRED WORK/HYGIENE : Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear colorless liquid

ODOR : Mild odor.

ODOR THRESHOLD : Not available

PH : 7.0 ± 1.0 (10% solution)

MELTING POINT/FREEZING POINT : Not available

BOILING POINT : Approx. 212° F.

FLASH POINT : Non flammable, non combustible

EVAPORATION RATE : Not available

FLAMMABILITY : Non flammable-Non combustible

LOWER FLAMMABILITY LIMIT : Not available

UPPER FLAMMABILITY LIMIT : Not available

VAPOR PRESSURE : Not available

VAPOR DENSITY (AIR=1) : Not available

RELATIVE DENSITY : 0.99

SOLUBILITY IN WATER : Soluble in water

PARTITION COEFFICIENT n-OCTANOL/WATER : Not available

AUTOIGNITION TEMPERATURE : Not available

DECOMPOSITION TEMPERATURE : Not available
SAFETY DATA SHEET
SANITE 75

SECTION 10 – STABILITY AND REACTIVITY

STABILITY
HAZARDOUS CONDITIONS TO AVOID
INCOMPATIBLE MATERIALS
HAZARDOUS DECOMPOSITION PRODUCTS
: Stable under recommended storage conditions.
: No decomposition if used according to specifications
: Keep away from strong acids.
: No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION
ACUTE TOXICITY
CARCINOGENICITY
ACUTE TOXICITY
PERSISTENCE AND BIODEGRADABILITY
BIOACCUMULATION
: LD50 values: Oral LD50: 405 mg/kg (rat). LC50 dermal: 740 mg/kg.
: US ACGIH Threshold Limit Values: A3 carcinogen: Ethanol (64-17-5) Group A3 confirmed animal carcinogen with unknown relevance to humans.
: Very Toxic to aquatic organisms Information available upon request. Please contact Wesmar Co. Technical Service Department.
: This product is biodegradable.
: No data available.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY
BIODEGRADABILITY
BIOACCUMULATIVE POTENTIAL
: Very Toxic to aquatic organisms Information available upon request. Please contact Wesmar Co. Technical Service Department.
: This product is biodegradable.
: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL
: This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME
HAZARD CLASS AND LABEL
UN NUMBER
PACKAGING GROUP
EPA REPORTABLE QUANTITY (RQ)
MARINE POLLUTANT
EMERGENCY RESPONSE GUIDE
: Not Hazardous
: Not Applicable.
: Not Applicable.
: Not Applicable.
: Not Applicable.
: Not listed.
: Not Applicable.

SECTION 15 – REGULATORY INFORMATION

U.N. GHS CLASSIFICATION & LABELING INFORMATION: See Section 2 for GHS Hazard Information
SAFETY DATA SHEET
SANITE 75

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN : Not listed.
TSCA STATUS : The ingredients of this product are listed in TSCA inventory (40CFR 710.)
SARA SECTION 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA SECTION 312 : Chronic health hazard (Glycol Ether DPM).
SARA SECTION 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
NFPA HEALTH : 2
NFPA FLAMMABILITY : 0
NFPA REACTIVITY : 0

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION : Non Hazardous
DSD/DPD RISK (R) PHRASES : R22: Harmful if swallowed.
R36/38: Irritating to eyes and skin.
DSD/DPD SAFETY (S) PHRASES : S1/2: Keep locked up and out of reach of children.
S24/25: Avoid contact with eyes and skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/S37/S39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
S61: Avoid release to the environment.
S62: If swallowed, do not induce vomiting.
S64: If swallowed, rinse mouth with water if victim is conscious.
DSD/DPD HAZARD SYMBOL : Xi: Irritant

CANADIAN REGULATORY INFORMATION:
WHMIS CATEGORY : D2B: Materials that cause other toxic effects (TOXIC).
DOMESTIC SUBSTANCES LIST (DSL) : Listed
INGREDIENT DISCLOSURE LIST : Listed

SECTION 16 – OTHER INFORMATION

DISCLAIMER : The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Wesmar Co. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

FOOT NOTES : N/A = Not Applicable
IMDG : International Maritime Code for Dangerous Goods
DOT : US Department of Transportation
IATA : International Air Transportation Association
ACGIH : American Conference of Governmental Industrial Hygienists
NFPA : National Fire Protection Association (USA)
HMIS : Hazardous Materials Identification System (USA)
SAFETY DATA SHEET
SANITE 75

LC50
LD50
STOT
DATE PREPARED
DATE REVISED

: Lethal concentration, 50 percent
: Lethal dose, 50 percent
: Systemic Target Organ Toxicity
: MAR 1, 2010
: MAR 1, 2014
SAFETY DATA SHEET
FORMULA EWR

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: FORMULA EWR
SYNONYMS: Product is a mixture: No synonyms are available.
PRODUCT USE: pH Neutral Material
SUPPLIER: WESMAR CO. INC.
SUPPLIER'S ADDRESS: 5720 204TH ST SW, Lynnwood, WA 98036 (206) 783-5344
EMERGENCY RESPONSE NUMBER: PERS: 1-800-633-8253

SECTION 2 - HAZARD IDENTIFICATION

GHS PRODUCT CLASSIFICATION: Serious eye damage/eye irritation Category 2B.
SIGNAL WORD: Not Applicable
GHS HEALTH HAZARD STATEMENT: H303: May be harmful if swallowed.
H320: Causes eye irritation.
The product is classified and labeled according to the Globally Harmonized System (GHS).
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P103: Read label before use.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

CLASSIFICATION SYSTEM: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA ratings (scale 0-4): Health = 1, Fire = 0, Reactivity = 0
HMIS ratings (scale 0-5): Health = 1, Fire = 0, Reactivity = 0

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures
Description: Mixtures of the substances listed below with nonhazardous additions.

COMPONENT: Aqueous solution containing naturally occurring microorganisms, surfactants, and/or colorants.
PERCENT: 10-20
CAS #: Not Applicable
EC #: Not Applicable

GHS CLASS: Eye Irritant Category 2B

SECTION 4 - FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. If eye irritation persists: Get medical advice/attention.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected skin area with soap and water.

SWALLOWING (INGESTION): If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops.

PAGE 1 of 5
SAFETY DATA SHEET
FORMULA EWR

Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION: Not an inhalation hazard.
OTHER INSTRUCTIONS: None

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use extinguishing media appropriate for the source of the fire.
SPECIAL PROTECTIVE EQUIPMENT
AND PRECAUTIONS FOR FIRE FIGHTERS: In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved, positive pressure, self-contained breathing apparatus (SCUBA) and full protective clothing. Evacuate all non-essential personnel from the danger area.

UNUSUAL FIRE AND EXPLOSION HAZARDS: No further relevant information is available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT
AND EMERGENCY PROCEDURES: Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact. The surface of the spill may be slippery.
ENVIRONMENTAL PRECAUTIONS: Keep spilled material away from sewage/Drainage systems and waterways.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP: All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Place waste in an appropriate container for disposal. Use care during clean-up to avoid injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear proper protective equipment.
CONDITIONS FOR SAFE STORAGE: Store in closed, properly labeled containers. Protect containers from heat, physical damage, ignition sources and incompatible materials. Have emergency equipment for fires and spills readily available.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE): The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL – TWA</th>
<th>ACGIH – TLV</th>
<th>ACGIH – STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aqueous solution containing naturally occurring microorganisms, surfactants, and/or colorants.</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

EYE PROTECTION: Chemical splash goggles or safety glasses.
SKIN PROTECTION: Minimize prolonged contact with concentrated product.
RESPIRATORY PROTECTION: Brief exposure should not require respiratory filter device.
VENTILATION: Adequate ventilation is recommended.

PAGE 2 of 5
SAFETY DATA SHEET
FORMULA EWR

ADDITIONAL MEASURES: Emergency eyewash and safety shower facilities should be available in the immediate work area.

REQUIRED WORK/HYGIENE: Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Turbid liquid with pleasant odor.
ODOR: Mild odor.
ODOR THRESHOLD: Not Available
pH: 6.5 - 7.5 as is
MELTING POINT/FREEZING POINT: Not available
BOILING POINT: Not available
FLASHPOINT: Not applicable
EVAPORATION RATE: Not Available
FLAMMABILITY: Non flammable, non combustible
LOWER FLAMMABILITY LIMIT: Not applicable
UPPER FLAMMABILITY LIMIT: Not applicable
VAPOR PRESSURE: Not Available
VAPOR DENSITY (AIR=1): Not determined
RELATIVE DENSITY: 1.0
SOLUBILITY IN WATER: Soluble in water
PARTITION COEFFICIENT n-OCTANOL/WATER: Not Available
AUTOIGNITION TEMPERATURE: Not Available
DECOMPOSITION TEMPERATURE: Not Available

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions.
HAZARDOUS CONDITIONS TO AVOID: No decomposition if used according to specifications.
INCOMPATIBLE MATERIALS: Keep away from strong oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY: Not listed. Eyes: Rabbit: Mild irritation: 25 hours.
CARCINOGENICITY: No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC, ACGIH, NTP, and OSHA.

SECTION 12 – ECOLOGICAL INFORMATION

ECOTOXICITY
ACUTE FISH TOXICITY: No data available
TOXICITY TO DAPHNIA: No data available
PERSISTENCE and DEGRADABILITY: No data available
BIOACCUMULATIVE POTENTIAL: No data available

SECTION 13 – DISPOSAL CONSIDERATIONS
SAFETY DATA SHEET
FORMULA EWR

WASTE DISPOSAL: This product must be disposed of in accordance with Federal, state and local environmental regulations.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME: Not Hazardous
HAZARD CLASS AND LABEL: Not Applicable.
UN NUMBER: Not Applicable
PACKAGING GROUP: Not Applicable
EPA REPORTABLE QUANTITY (RQ): Not Applicable.
MARINE POLLUTANT: Not listed.
EMERGENCY RESPONSE GUIDE: Not Applicable.

SECTION 15 – REGULATORY INFORMATION

U.N. GHS CLASSIFICATION & LABELING INFORMATION:
CLASSIFICATION: Eye Irritant: Category 2B.
SIGNAL WORD: Not Applicable
H STATEMENTS: H303: May be harmful if swallowed.
H310: Causes eye irritation.
P STATEMENTS: P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P103: Read label before use.
P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313: If eye irritation persists: Get medical advice/attention.
P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

HAZARD PICTOGRAMS: Not Applicable

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN: Not listed.
TSCA STATUS: The ingredients of this product are listed on TSCA inventory (40CFR 710.)
SARA SECTION 302: None
SARA SECTION 312: Acute health hazard.
SARA SECTION 313: Not listed
NFPA HEALTH: 1
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 0

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION: Non Hazardous
DSD/DPD RISK (R) PHRASES: R22: Harmful if swallowed.
R38: Irritating to eyes skin.
DSD/DPD SAFETY (S) PHRASES: S25: Avoid contact with skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S64: If swallowed, rinse mouth with water if victim is conscious.
SAFETY DATA SHEET
FORMULA EWIR

DSD/PDP HAZARD SYMBOL: Exclamation Mark

CANADIAN REGULATORY INFORMATION:
WHMIS CATEGORY: Not Classified Hazardous
DOMESTIC SUBSTANCES LIST (DSL): Listed
INGREDIENT DISCLOSURE LIST: Listed

SECTION 16 – OTHER INFORMATION

REFERENCES: The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Wesmar Co. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

FOOT NOTES: NOT EST. = Not Established, N/A = Not Applicable, (Ceil) = TLV ceiling limit.
IMDG: International Maritime Code for Dangerous Goods
DOT: US Department of Transportation
IATA: International Air Transportation Association
ACGIH: American Conference of Governmental Industrial Hygienists
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
TOST: Target Organ Systemic Toxicity
DATE PREPARED: MAR 1, 2013
DATE REVISED: JAN 12, 2014

PAGE 5 of 5
PRODUCT: Keeper

MATERIAL SAFETY DATA SHEET

TRANSPORTATION EMERGENCY 24 HOUR TELEPHONE: (800) 424-9300 (CHEMTREC)

SECTION I: PRODUCT IDENTIFICATION

PRODUCT NAME: Keeper

CHEMICAL FAMILY: Mixture of Oxycarbonate Compounds

SYNONYMS: N/A CAS #: None (Mixture)

NFPA RATING: [with 0 for no hazard to 4 for life threatening]
   Fire: 0 Health: 1 Reactivity: 1 Special: None

WARNING STATEMENT: Product may cause eye and skin irritation

EFFECTIVE DATE: June 1999
5th REVISION: January 1998

SECTION II: HAZARDOUS INGREDIENTS

INGREDIENT [CAS #]

<table>
<thead>
<tr>
<th>PERCENT</th>
<th>OSHA ACGIH</th>
<th>TLV</th>
<th>STEL</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Chloride [7758-19-2]</td>
<td>3.35</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Chlorine Dioxide [10049-04-3]</td>
<td>Trace</td>
<td>0.1</td>
<td>0.1</td>
<td>0.3</td>
</tr>
</tbody>
</table>

TOTAL 3.35

NE = NOT ESTABLISHED NL = NOT LISTED
(C) = IDENTIFIED AS A CARCINOGEN BY OSHA, IARC, NTP, OR ROTECS

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). In addition, other substances not classified as "Hazardous" per this OSHA Standard may be listed. The identity of other ingredients will be made available as provided in this standard.

SECTION III: PHYSICAL/CHEMICAL DATA

APPEARANCE AND ODOR: Clear liquid with very faint chlorine odor

BOILING POINT: 213°F (100.5°C)
MELTING POINT: N/A

OR PRESSURE: 23.7 mm Hg (25°C)
VAPOR DENSITY: 0.02 kg/m³

SPECIFIC GRAVITY: 1.03 g/ml (20°C)

VOLATILE ORGANIC COMPOUNDS: <0.1% by weight

SECTION IV: FIRE AND EXPLOSIVE HAZARD INFORMATION

FLASH POINT: None to solution boiling point.
Method: N/A

FLAMMABLE LIMITS (% By Volume): Lower: N/A Upper: N/A

AUTOIGNITION TEMPERATURE: N/E

DECOMPOSITION TEMPERATURE: N/E (For dry sodium hydroxide: 180 - 200°C)

FIRE EXTINGUISHING MEDIA: Water unless contraindicated by other material involved in fire.

FIRE-FIGHTING EQUIPMENT: Standard protective gear.

SPECIAL FIRE-FIGHTING PROCEDURES: Do not allow Keeper solutions to evaporate or dryness.

UNUSUAL FIRE OR EXPLOSIVE HAZARDS: The sodium chlorite in dried Keeper is a strong oxidizer, which supports combustion. Do not allow chlorinate dioxide gas to accumulate within a confined space.

SECTION V: REACTIVITY DATA

STABILITY: Product is stable.

CONDITIONS TO AVOID: Avoid storing product under conditions in which it could evaporate to crystalline salt.

INCOMPATIBLE MATERIALS: Avoid accidental contact with acids, chlorine compounds, hypochlorites (bleach), sulfur and sulfite compounds, phosphorus, organic solvents, and combustible/flammable materials.
HAZARDOUS DECOMPOSITION PRODUCTS: Exposure to acids or chlorine compounds can produce chlorine dioxide gas.

HAZARDOUS POLYMERIZATION: Does not occur.

SECTION VI: HEALTH HAZARD DATA

INGESTION: Rat Oral LD 50: 4,360 mg/kg. Ingestion may produce gastric discomfort, nausea, vomiting, and diarrhea. Intake of large quantities may produce methemoglobinemia.

EYE CONTACT: Based on rabbit studies, Keeper has been given an EPA Category III rating as a mild irritant. Exposure can produce slight irritation of conjunctiva, cornea, and eyelid.

SKIN CONTACT: Based on rabbit studies, Keeper is listed as ‘practically not an irritant’. Prolonged exposure may produce localized irritation, contact dermatitis, mild erythema, and edema.

SKIN ABSORPTION: Highly unlikely to be absorbed through skin in toxic amounts. Rabbit Dermal LD 50 > 2,020 mg/kg.

INHALATION: Acute Inhalation: LC 50 > 5.61 mg/L. Prolonged inhalation of fog or mist containing Keeper may be irritating to nose and throat.

SYSTEMIC AND OTHER EFFECTS: None known.

CHRONIC EXPOSURE EFFECTS: May cause localized irritation to areas exposed to product.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin disorders, such as dermal allergies and dermatitis. Exposure to chlorine dioxide produced by activation can aggravate pulmonary disorders, such as emphysema.

CARCINOGENICITY: Active ingredients are not listed by ROTECS, OSHA, IARC, or NTP. No evidence to date implicating product as carcinogen or tumor promoter.

MUTAGENICITY: Though product active ingredient is a chemical oxidant, no evidence to date for mutagenicity from whole animal or in vitro studies.

REPRODUCTIVE EFFECTS: No known effects to date.

OTHER HEALTH HAZARDS/HEALTH EFFECTS: None known.

SECTION VII: FIRST AID

TARGET ORGANS: Skin, eyes. For chlorine dioxide produced from activation: respiratory tract and exposed mucous membranes.

SYMPTOMS OF OVER-EXPOSURE: Skin and eye irritation. Exposure to chlorine dioxide from activation can produce coughing, sore throat, headache, and dizziness.

SKIN CONTACT: Wash affected area thoroughly with soap and water. Remove contaminated clothing and rinse thoroughly with water before laundering or discard. If irritation occurs, seek medical attention.

EYE CONTACT: Flush eyes thoroughly with water, making certain eyelids are held open. If irritation or burning persist, seek medical attention.

INHALATION: Unactivated Keeper normally has no respiratory effects. If exposure to chlorine dioxide produced from activation occurs, remove victim to fresh air. Contact a physician if respiratory distress continues.

INGESTION: DO NOT INDUCE VOMITING. Contact a physician or Poison Control Center immediately.

PLEASE NOTE: Above procedures are recommended as emergency first aid precautions only. They are not intended to replace or supplant the treatment advice of a physician or other authorized health care specialist.

SECTION VIII: CONTROL MEASURES/PERSONAL PROTECTION EQUIPMENT

VENTILATION: Open air or good room ventilation is normal adequate for safe use of this product. Avoid breathing any vapors or fumes resulting from acid activation.

RESPIRATORY PROTECTION: Follow facilities respirator program in accordance with OSHA regulations (29 CFR 1910.134 and 29 CFR 1910.1000). If respirators are used, ensure that the NIOSH/MSHA approved respirators are rated for chlorine/acid vapors or specified for chlorine dioxide.

EYE PROTECTION: Good manufacturing practice recommends use of chemical safety goggles for all applications involving chemical handling.

PROTECTIVE CLOTHING: Good manufacturing practice recommends that, at a minimum, rubber, neoprene, or other chemically impervious gloves be worn for all applications involving chemical handling.

OTHER PROTECTIVE MEASURES: Follow label directions

SECTION IX: SPILL, LEAK, AND DISPOSAL PROCEDURES

ENVIRONMENTAL NOTIFICATION: SPILL OR LEAK PROCEDURE: Small spills, involving less than 10 gallons, may be flushed to a designated and permitted sewer system with copious amounts of water. Do not discharge this product to storm drains or to any surface or groundwater source unless specifically allowed under a valid NPDES permit.
OSAL PROCEDURE: Small quantities, less than 10 gallons, may be flushed to an authorized and permitted sewer with copious amounts of water.

SECTION XI: SPECIAL PRECAUTIONS

PRODUCT STORAGE: Store in a cool, dry, well-ventilated location away from acids, chlorine and chlorine compounds, hypochlorites (bleach), organic solvents, sulfur and sulfite compounds, phosphorus, combustible/flammable materials, and direct sunlight. Keep containers tightly closed when not in use and open carefully to prevent spillage. Storage on wooden floors and pallets is not recommended.

PRODUCT HANDLING: Use product only as directed by the label or by your authorized Bio-Cide representative. Avoid contact with skin and eyes; avoid breathing any vapors or fumes resulting from product activation. Keep away from children, animals, and unauthorized personnel.

OTHER PRECAUTIONS: Product may bleach clothing and fabric materials, such as draperies and carpets.

SECTION XII: REGULATORY STATUS

EPA Regulations

TSCA: All product ingredients are on inventory.

SARA TITLE 312/313: Neither the product nor its constituent ingredients are listed under SARA reporting requirements. Chlorine dioxide produced from activation is listed under SARA 313.

RCRA: Not considered a hazardous waste either categorically or by chemical listing.

CLEAN WATER ACT: Neither product nor constituent ingredients is listed as priority pollutant.

CLEAN AIR ACT: Neither product nor constituent ingredients is listed as priority pollutant.

Federal OSHA Regulations

Neither product nor constituent ingredients is classified as an acute or chronic health hazard by OSHA. Chlorine dioxide produced by activation is regulated with an air exposure limit of 0.1 ppm TLV and 0.3 ppm STEL.

Federal Department of Transportation

Not regulated.

State Laws

SALIFORNIA: Not regulated under the provisions of Proposition 65 Safe Drinking Water and Toxic Enforcement Act of 1986.)
# MULTI-CHLOR

12.5% Sodium Hypochlorite

Emergency 24 Hour Telephone: CHEMTREC 800.424.9300

Corporate Headquarters:
Hasa Inc.
P.O. Box 802736
Santa Clarita, CA 91355
Telephone • 661.259.5848
Fax • 661.259.1538

## SECTION 1: IDENTIFICATION

<table>
<thead>
<tr>
<th>1.1</th>
<th>Product Identification:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.1.1</td>
<td><strong>Product Name:</strong></td>
</tr>
<tr>
<td>1.1.2</td>
<td><strong>CAS # (Chemical Abstracts Service):</strong></td>
</tr>
<tr>
<td>1.1.3</td>
<td><strong>RTECS (Registry of Toxic Effects of Chemical Substances):</strong></td>
</tr>
<tr>
<td>1.1.4</td>
<td><strong>EINECS (European Inventory of Existing Commercial Substances):</strong></td>
</tr>
<tr>
<td>1.1.5</td>
<td><strong>EC Number:</strong></td>
</tr>
<tr>
<td>1.1.6</td>
<td><strong>Synonym:</strong></td>
</tr>
<tr>
<td>1.1.7</td>
<td><strong>Chemical Name:</strong></td>
</tr>
<tr>
<td>1.1.8</td>
<td><strong>Chemical Formula:</strong></td>
</tr>
<tr>
<td>1.2</td>
<td><strong>Recommended Uses:</strong></td>
</tr>
<tr>
<td>1.3</td>
<td><strong>Company Identification:</strong></td>
</tr>
<tr>
<td>1.4</td>
<td><strong>Emergency Telephone Number:</strong></td>
</tr>
<tr>
<td>1.5</td>
<td><strong>Non-Emergency Assistance:</strong></td>
</tr>
</tbody>
</table>
### SECTION 2: HAZARD(S) IDENTIFICATION

<table>
<thead>
<tr>
<th>HEALTH HAZARD</th>
<th>Environmental hazard</th>
<th>Physical hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin corrosion / irritation:</td>
<td>Specific target organ toxicity, single exposure</td>
<td>Corrosive to metals.</td>
</tr>
<tr>
<td>Serious Eye damage / Eye irritation</td>
<td>Hazardous to the aquatic environment, acute hazard</td>
<td>Category 1</td>
</tr>
<tr>
<td></td>
<td>Category 3 (respiratory tract irritation)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Category 1</td>
</tr>
</tbody>
</table>

#### SIGNAL WORD

<table>
<thead>
<tr>
<th>HAZARD</th>
<th>DANGER</th>
</tr>
</thead>
<tbody>
<tr>
<td>May be corrosive to metals. Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life.</td>
<td></td>
</tr>
</tbody>
</table>

#### PRECAUTIONARY STATEMENT

**Prevention**

Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep only in original container. Avoid release to the environment.

**Response**

If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.

#### Storage and Disposal

Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container. Dispose of container/contents in accordance with local, regional, national, international regulations as specified.

### SECTION 3: COMPOSITION INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Synonyms</th>
<th>CAS No.</th>
<th>Weight %</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.1 Sodium Hypochlorite</td>
<td>Bleach</td>
<td>7681-52-9</td>
<td>12.5%</td>
</tr>
<tr>
<td>3.2 Sodium Hydroxide</td>
<td>Caustic Soda</td>
<td>1310-73-2</td>
<td>0.2%</td>
</tr>
</tbody>
</table>
### SECTION 4: FIRST AID MEASURES

| 4.1 IF IN EYES | • Hold eye open and rinse slowly and gently with water for 15-20 minutes.  
|               | • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.  
|               | • Call a poison control center or doctor for treatment advice.  |
| 4.2 IF ON SKIN OR CLOTHING | • Take off contaminated clothing.  
|                           | • Rinse skin immediately with plenty of water for 15-20 minutes.  
|                           | • Call a poison control center or doctor for treatment advice.  |
| 4.3 IF INHALED | • Move person to fresh air.  
|                | • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible.  
|                | • Call a poison control center or doctor for further treatment advice.  |
| 4.4 IF SWALLOWED | • Call a poison control center or doctor immediately for treatment advice.  
|                  | • Have person sip a glass of water if able to swallow.  
|                  | • Do not induce vomiting unless told to do so by a poison control center or doctor.  
|                  | • Do not give anything by mouth to an unconscious person.  |

### HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

### NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

### SECTION 5: FIRE FIGHTING MEASURES

| 5.1 Flash Point: | Not applicable. |
| 5.2 Flammability: | Nonflammable and noncombustible. |
| 5.3 Auto-Ignition Temperature: | Not applicable. |
| 5.4 Products of Combustion: | Not pertinent. |
| 5.5 Fire Hazards: | May decompose, generating irritating chlorine gas. |
| 5.6 Explosion Hazards: | Not explosive. |

| 5.7 Fire Fighting Media and Instructions:  
| 5.7.2 Small Fires: | Use carbon dioxide, or water spray.  
| 5.7.3 Large Fires: | Use flooding quantities of water as fog.  

5.8 Special Remarks on Fire Hazards: Do not use Mono Ammonium Phosphate (MAP) fire extinguishers. Such use may cause explosion with release of toxic gases.
### SECTION 6: ACCIDENTAL RELEASE MEASURES

<table>
<thead>
<tr>
<th>6.1 Small Spill:</th>
<th>Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.</th>
</tr>
</thead>
<tbody>
<tr>
<td>6.2 Large Spill:</td>
<td>Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water. Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS.</td>
</tr>
<tr>
<td>6.3 Personal Precautions, Protective Equipment &amp; Emergency Procedures:</td>
<td>Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Absorb spillage to prevent material damage. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.</td>
</tr>
<tr>
<td>6.4 Environmental Precautions:</td>
<td>Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.</td>
</tr>
</tbody>
</table>

### SECTION 7: HANDLING AND STORAGE

| 7.1 Handling: | • Avoid contact with skin or eyes.  
  • Do not ingest.  
  • Avoid inhalation of vapor or mist.  
  • Wear protective equipment if necessary.  
  • Mix only with water in accordance with label directions.  
  • Mixing this product with ammonia, acids, detergents, etc. or with organic materials, e.g. feces, urine, etc. will release chlorine gas, which is irritating to eyes, lungs, and mucous membranes. |
|----------------|--------------------------------------------------------------------------------------------------|
| 7.2 Hygiene Measures: | • Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet.  
  • While handling this product, avoid eating, drinking or smoking. |
| 7.3 Storage: | • Do not freeze.  
  • Store in a cool, shaded outdoor area.  
  • Inside storage should be in a cool, dry, well-ventilated area.  
  • To maintain hypochlorite strength, do not store in direct or heated indoor areas.  
  • Keep in original vented container.  
  • Keep container closed when not in use.  
  • Do not store adjacent to chemicals that may react if spillage occurs.  
  • If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition). |
## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1 Engineering Controls:
Local exhaust ventilation to maintain levels below STEL (Short Term Exposure Limit) of 1 ppm as chlorine.

### 8.2 Personal Protection:

#### 8.2.1 Eye / Face Protection:
Wear safety glasses, goggles or face shield to prevent eye contact.

#### 8.2.2 Skin Protection:
Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Butyl rubber, Neoprene, or Nitrile Gloves should be worn when handling this material. Wear chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse.

#### 8.2.3 Respiratory Protection:
Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and chemical goggles. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus.

#### 8.2.4 Other Safety Equipment:
Eye wash facility and emergency shower should be in close proximity.

### 8.3 Exposure Limits:

<table>
<thead>
<tr>
<th>Source</th>
<th>Sodium Hypochlorite</th>
<th>Chlorine*</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.3.1</td>
<td>AIHA (American Industrial Hygiene Association) / WEEL (Workplace Environmental Exposure Level guides) 2010</td>
<td>2 mg/m³; 15 minute. (Short-term time weighted average)</td>
</tr>
<tr>
<td>8.3.2</td>
<td>ACGIH (American Conference of Governmental Industrial Hygienists)  TWA (Time Weighted Average)</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.3</td>
<td>ACGIH STEL (Short Term Exposure Limit)</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.4</td>
<td>OSHA PEL (Permissible Exposure Limit)</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.5</td>
<td>ACGIH Ceiling</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.6</td>
<td>NIOSH (National Institute for Occupational Safety &amp; Health) IDLH (Immediate Danger to Life &amp; Health)</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.7</td>
<td>OSHA STEL (Short Term Exposure Limit)</td>
<td>Not established.</td>
</tr>
<tr>
<td>8.3.8</td>
<td>NIOSH (15 min. ceiling)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

* Chlorine is unlikely to be present as a decomposition product, but may be present in incidents of accidental mixing with other chemicals.
### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>9.1 Appearance:</th>
<th>Greenish yellow liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>9.2 Odor:</td>
<td>Pungent.</td>
</tr>
<tr>
<td>9.3 Odor Threshold:</td>
<td>0.9 mg/m³.</td>
</tr>
<tr>
<td>9.4 pH:</td>
<td>11.2 – 11.4 (1% solution)</td>
</tr>
<tr>
<td>9.5 Melting Point:</td>
<td>Not pertinent.</td>
</tr>
<tr>
<td>9.6 Freezing point:</td>
<td>-23.3 °C (-10 °F)</td>
</tr>
<tr>
<td>9.7 Boiling Point &amp; Boiling Range:</td>
<td>Decomposes @ 110 °C (230 °F)</td>
</tr>
<tr>
<td>9.8 Flash Point:</td>
<td>No information available.</td>
</tr>
<tr>
<td>9.9 Evaporation Rate:</td>
<td>No information available.</td>
</tr>
<tr>
<td>9.10 Flammability (solid, gas):</td>
<td>Not flammable.</td>
</tr>
<tr>
<td>9.11 Upper / Lower Flammability or Explosive Limits:</td>
<td>No information available.</td>
</tr>
<tr>
<td>9.12 Vapor Pressure:</td>
<td>12.1 mm Hg @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>9.13 Vapor Density:</td>
<td>2.61 (air=1)</td>
</tr>
<tr>
<td>9.14 Relative Density (Specific Gravity):</td>
<td>1.2 g/mL or 10 lb/gallon @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>9.15 Solubility in Water:</td>
<td>Mixes infinitely with water.</td>
</tr>
<tr>
<td>9.16 Partition Coefficient: (n-octanol / water):</td>
<td>No information available.</td>
</tr>
<tr>
<td>9.17 Auto-Ignition Temperature:</td>
<td>No information available.</td>
</tr>
<tr>
<td>9.18 Decomposition Temperature:</td>
<td>Decomposes @ 110 °C (230 °F)</td>
</tr>
<tr>
<td>9.19 Molecular Weight:</td>
<td>74.5 g/mole</td>
</tr>
<tr>
<td>9.20 Viscosity:</td>
<td>1.75 - 2.50 centipoises (varies with temperature)</td>
</tr>
</tbody>
</table>

### SECTION 10: STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>10.1 Stability:</th>
<th>Stable under normal conditions of storage, handling, and use.</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.2 Instability / Decomposition Temperature:</td>
<td>All bleach decomposition is dependant on temperature. For any given temperature, the higher the strength, the faster it decomposes. In summary, for every 10 °C increase in storage temperature, the sodium hypochlorite will decompose at an increased rate factor of approximately 3.5.</td>
</tr>
<tr>
<td>10.3 Conditions of Instability:</td>
<td>High heat, ultraviolet light.</td>
</tr>
<tr>
<td>10.4 Incompatibility with Various Substances:</td>
<td>Oxidizing agents, acids, nitrogen containing organics, metals, iron, copper, nickel, cobalt, organic materials, and ammonia.</td>
</tr>
<tr>
<td>10.5 Corrosivity:</td>
<td>Corrosive to metals.</td>
</tr>
<tr>
<td>10.6 Special Remarks on Reactivity:</td>
<td>Rate of decomposition increases with heat. May develop chlorine if mixed with acidic solutions.</td>
</tr>
<tr>
<td>10.7 Special Remarks on Corrosivity:</td>
<td>None.</td>
</tr>
<tr>
<td>10.8 Hazardous Polymerization:</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>
## SECTION 11: TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>11.1 Routes of Entry:</th>
<th>Eyes, skin, ingestion, dermal absorption.</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.2 Acute Toxicity:</td>
<td></td>
</tr>
<tr>
<td>11.2.1 Oral Toxicity (LD₅₀):</td>
<td>3-5 g/kg (rat)</td>
</tr>
<tr>
<td>11.2.2 Dermal Toxicity (LD₅₀):</td>
<td>&gt;2 g/kg (rabbit)</td>
</tr>
<tr>
<td>11.2.3 Primary Eye Irritation:</td>
<td>Corrosive</td>
</tr>
<tr>
<td>11.2.4 Primary Skin Irritation:</td>
<td>Corrosive</td>
</tr>
<tr>
<td>11.2.5 Inhalation Toxicity (LC₅₀):</td>
<td>No data available.</td>
</tr>
</tbody>
</table>

| 11.3 Chronic Effects (Human Risk Assessment): | Based on the toxicity profile and exposure scenarios for sodium hypochlorite, EPA concludes that the risks from chronic and subchronic exposure to low levels of these pesticides are minimal and without consequence to human health. |

| 11.4 Tolerance Requirement: | Exempt (EPA document “Index to Pesticide Chemical Names, Part 180 Tolerance Information, and Food and Feed Commodities (by Commodity)” July 2010 |

## SECTION 12: ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>12.1 Ecotoxicity:</th>
<th>Sodium hypochlorite is low in toxicity to avian wildlife, but it is highly toxic to freshwater fish and invertebrates.</th>
</tr>
</thead>
</table>
| 12.1.1 Freshwater Fish Toxicity: | Atlantic Herring (clupea harengus)  
LC₅₀ = 0.033 - 0.097 mg/l/96 hr. flow through bioassay (pH: 8)  
Shiner Perch (cymatogaster aggregata)  
LC₅₀ = 0.045 - 0.098 mg/l/96 hr. flow through bioassay (pH: 8)  
Three Spine Stickleback (gasterosteus aculeatus)  
LC₅₀ = 0.141 - 0.193 mg/l/96 hr. flow through bioassay (pH: 8)  
Pink Salmon (oncorhynchus gorbuscha)  
LC₅₀ = 0.023 - 0.052 mg/l/96 hr. flow through bioassay (pH: 8)  
Coho Salmon (oncornynchus kisutch)  
LC₅₀ = 0.026 - 0.038 mg/l/96 hr. flow through bioassay (pH: 8)  
English Sole (parophrys vetulus)  
LC₅₀ = 0.044 - 0.144 mg/l/96 hr. flow through bioassay (pH: 8)  
Fat Head Minnow (pimephales promelas)  
LC₅₀ = 0.22 - 0.62 mg/l/96 hr. flow through bioassay (pH: 7) |
| 12.1.2 Invertebrate Toxicity: | Water Flea (ceriodaphnia sp. 0)  
LC₅₀ = 0.006 mg/l/24 hr  
Water Flea (daphnia magna)  
LC₅₀ = 0.07 - 0.7 mg/l/24 hr  
Water Flea (daphnia magna)  
LC₅₀ = 2.1 mg/l/96 hr  
Fresh Water Shrimp (gammarus fasciatus)  
LC₅₀ = 0.4 mg/l/96 hr  
No common name (nitocra spinipes)  
LC₅₀ = 0.40 mg/l/96 hr  
Grass Shrimp (palaemonetes pugio)  
LC₅₀ = 0.52 mg/l/96 hr |

| 12.2 Persistence: | No data available. |

| 12.3 Environmental Fate: | In fresh water, sodium hypochlorite breaks down rapidly into non-toxic compounds when exposed to sunlight. In seawater, chlorine levels decline rapidly; however, hypobromite (which is acutely toxic to aquatic organisms) is formed. EPA believes that the risk of acute exposure to aquatic organisms is sufficiently mitigated by precautionary labeling and National Pollutant Discharge Elimination System (NPDES) permit requirements. |

| 12.4 Bioconcentration: | This material is not expected to bioconcentrate in organisms. |
| 12.5 Biodegradation: | This material is inorganic and not subject to biodegradation. |
SECTION 13: DISPOSAL CONSIDERATIONS

Do not contaminate food or feed by storage, disposal, or cleaning of equipment. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. This product can be neutralized with sodium bisulfite, sodium thiosulfate, sodium sulfite. Do not confuse these products with sulfates or bisulfates. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not contaminate water containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Dispose of in accordance with all applicable local, County, State, and Federal regulations.

SECTION 14: TRANSPORT INFORMATION

<table>
<thead>
<tr>
<th>14.1</th>
<th>UN Number</th>
<th>Inside containers (&lt; 1.3 gallons)</th>
<th>Container (&gt;1.3 gallons)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>UN Number</td>
<td>Limited Quantity</td>
<td>UN 1791</td>
</tr>
<tr>
<td>14.2</td>
<td>UN Proper Shipping Name</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.3</td>
<td>Transport Hazard Class</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.4</td>
<td>Packing Group</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>14.5</td>
<td>Environmental Hazard (e.g. Marine Pollutant)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>14.6</td>
<td>Reportable Quantity (RQ): 100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient)</td>
<td>100 lb (45.4 kg) or 80 gallons (based on 12.5% active ingredient)</td>
<td></td>
</tr>
</tbody>
</table>

**14.7** Materials of Trade (MOT) Exceptions.

Certain hazardous materials transported in small quantities as part of a business are subject to less regulation, because of the limited hazard they pose. These materials are known as Materials of Trade. The regulations that apply to MOTs are found in 49 CFR § 173.6.

*This information is not intended to convey all specific regulatory or operational requirements / information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*
## SECTION 15: REGULATORY INFORMATION

### 15.1 U.S. Regulations:

| 15.1.1 OSHA HAZCOM (Hazard Communication) | This material is considered hazardous under the HAZCOM Standard (29 CFR 1910.1200) |
| 15.1.3 EPA FIFRA (Federal Insecticide, Fungicide and Rodenticide Act) | EPA Reg. No.: 10897-26 (Registered pesticide under 40 CFR 152.10) |
| 15.1.4 EPA TSCA (Toxic Substance Control Act) | All components are listed or exempted. TSCA 12(b): This product is not subject to export notification. |
| 15.1.5 EPA CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) | Reportable Quantity (RQ): 45.4 kg (100 lbs) or 80 gallons (based on 12.5% active ingredient). |
| 15.1.6 EPA RMP (Risk Management Plan) | Not listed. (40 CFR 68.130) |

### 15.2 State of California Regulations:

**15.2.1 Safe Drinking Water and Toxic Enforcement Act of 1986 [Proposition 65, California only]:** Small quantities – less than 100 ppm (parts per million) – of impurities, including bromates, may be found in all chlorinating products, including this product. Bromates are derived from bromides, which are present in sodium chloride (table salt) from which chlorine is manufactured. Additional small quantities of bromates may be generated during the disinfection process. Bromates are known by the State of California to cause cancer when administered by the oral (drinking or ingesting) route. Read and follow label directions and use care when handling or using this product. The US Environmental Protection Agency has established a maximum contaminant level (MCL) for bromates in drinking water at 10 ppb (parts per billion). Application of this product in accordance with label directions at use dilution will not exceed this level. This warning is provided pursuant to Proposition 65, Chapter 6.6 of the California Health and Safety Code, which requires the Governor of California to publish a list of chemicals “known to the State to cause cancer or reproductive toxicity.” This list is compiled in accordance with the procedures established under the proposition, and can be obtained on the internet from California’s Office of Environmental Health Hazard Assessment at http://www.oehha.ca.gov.

| 15.2.2 CDPR (California Department of Pesticide Regulation) | Registration No: 10897-26-AA |
| 15.2.3 CalARP (California Accidental Release Prevention Program) | Not regulated. |

### 15.3 Canada Regulations:

<table>
<thead>
<tr>
<th>15.3.1 WHMIS (Workplace Hazardous Materials Information System)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Classification: E (Corrosive Materials)</td>
</tr>
<tr>
<td>Health Effects Criteria Met by this Chemical:</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Ingredient Disclosure List: Included for disclosure at 1% or greater.</td>
</tr>
</tbody>
</table>

| 15.3.2 DSL (Domestic Substances List) |
| All components of this product are on the DSL. |

### 15.4 International Inventory:

| 15.4.1 AICS (Australian Inventory of Chemical Substances) |
| On inventory or in compliance with inventory. |
| 15.4.2 KECl (Korean Existing Chemicals Inventory) |
| On inventory or in compliance with inventory. |
| 15.4.3 PICCS (Philippine Inventory of Chemicals and Chemical Substances) |
| On inventory or in compliance with inventory. |
| 15.4.4 IECSC (Inventory of Existing Chemical Substances in China) |
| On inventory or in compliance with inventory. |
| 15.4.5 NZIoC (New Zealand Inventory of Chemicals) |
| On inventory or in compliance with inventory. |
## SECTION 16: OTHER INFORMATION

### 16.1 HMIS III (Hazardous Materials Identification System):

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>PHYSICAL HAZARD</td>
<td>1</td>
</tr>
</tbody>
</table>

**PERSONAL PROTECTION:** See Section 8.

### 16.2 NFPA 704 (National Fire Protection Association):

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH</td>
<td>2</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>0</td>
</tr>
<tr>
<td>INSTABILITY</td>
<td>0</td>
</tr>
<tr>
<td>SPECIAL</td>
<td>None</td>
</tr>
</tbody>
</table>

### 16.3 International Fire Code / International Building Code:

<table>
<thead>
<tr>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritant</td>
</tr>
</tbody>
</table>

### 16.4 ANSI (American National Standards Institute):

<table>
<thead>
<tr>
<th>Requirement</th>
<th>Compliance</th>
</tr>
</thead>
</table>

---

**Note:** The information contained herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge and belief. **NO WARRANTY OR GUARANTEE** express or implied, is made regarding the product performance, product stability, or as to any other condition of use, handling, transportation, and storage. Customer use, handling, transportation, and storage may involve additional safety and/or performance considerations. Our technical personnel will be happy to respond to questions regarding safe handling, storage, transportation, and use procedures. The safe handling, storage, transportation, and use procedures remain the sole responsibility of the customer. No suggestions for handling, storage, transportation, or use are intended as or to be construed as recommendations which may infringe on any existing patents or violate any Federal, State, and/or local law and/or regulation, ordinance, standard, etc. This Safety Data Sheet has been prepared by HASA, Inc. staff from test reports and other information available in the public domain.
Safety Data Sheet  
ACTIVATOR P-35 FG

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME  ACTIVATOR P-35 FG
SYNONYMS  Product is a mixture: No synonyms are available
PRODUCT USE  Highly Acidic Material
SUPPLIER  WESMAR CO. INC.
SUPPLIER'S ADDRESS  5720 204TH ST. SW, LYNNWOOD, WA 98036
(206) 783-5344
EMERGENCY RESPONSE PHONE  PERS: 1-800-633-8253

SECTION 2 - HAZARD IDENTIFICATION

GHS - US CLASSIFICATION
: H290  Metal corrosion Category 1
: H302  Harmful if swallowed
: H314  Skin Corrosion Category 1A
: H318  Serious Eye Damage Category 1
: H370  STOT SE 1

HAZARD PICTOGRAMS

SIGNAL WORD: DANGER
GHS LABEL ELEMENTS: The product is classified and labeled according to the Globally Harmonized System (GHS).

GHS PHYSICAL HAZARDS
: H290  May be corrosive to metals.
: H302  Harmful if swallowed
: H314  Causes severe skin burns and eye damage.
: H318  Causes serious eye damage.
: H370  Causes damage to respiratory system by inhalation.

GHS PRECAUTIONARY HAZARDS
: P101  If medical advice is needed, have product container or label at hand.
: P102  Keep out of reach of children.
: P103  Read label before use.
: P264  Wash skin and contaminated clothing thoroughly after handling.
: P270  Do not eat, drink or smoke when using this product.
: P280  Wear suitable protective gloves/protective clothing/eye protection/face protection.

P301+P330  IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
+P331
P303+P361  IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
+P353
P305+P351  IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
+P338
P305+P340  IF INHALED: Remove victim to fresh air and keep at rest in a position.
P310  Immediately call a POISON CENTER or doctor/physician.
P330  Rinse mouth if ingested.
P405  Store locked up.
P501  Dispose of contents/container in accordance with local/regional/national/international regulations.

CLASSIFICATION SYSTEM: NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
Safety Data Sheet
ACTIVATOR P-35 FG

NFPA ratings (scale 0-4):
Health = 3, Fire = 0, Reactivity = 1
HMIS ratings (scale 0-5):
Health = 3, Fire = 0, Reactivity = 1

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION: Mixtures
DESCRIPTION: Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENT</th>
<th>CAS #</th>
<th>EC #</th>
<th>GHS CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>50-75</td>
<td>7664-38-2</td>
<td>231-633-2</td>
<td>Skin Corr Cat 1B, Eye Dam Cat 1</td>
</tr>
</tbody>
</table>

Corr. = Corrosion, Cat = Category, Tox = Toxicity, Inhal. = Inhalation, Dam = Damage

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Remove contact lenses, if present and easy to do so. Continue rinsing. Immediate call a POISON CENTER or doctor/physician.

SKIN CONTACT: Remove contaminated clothing and shoes. Wash affected skin area with water for at least 15 minutes. Delayed skin damage is possible if product is not completely washed off. Get immediate medical attention. Wash contaminated clothing before reuse.

SWALLOWING (INGESTION): If ingested, dilute swallows material by drinking water. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person. Immediate call a POISON CENTER or doctor/physician.

INHALATION: When symptoms occur, go into open air and ventilate suspected area. Remove to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

GENERAL MEASURES: Never give anything by mouth to an unconscious person. Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Water spray, fog, carbon dioxide, foam, dry chemical
SPECIAL HAZARDS (FIRE): Not flammable. Contains sodium hypochlorite which may act as an oxidizer in some cases intensifying a fire.
EXPLOSION HAZARDS: Product is not explosive.
REACTIVITY (FIRE): Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosive hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.

SPECIAL INSTRUCTIONS TO FIRE FIGHTERS
PRECAUTIONARY MEASURES: Exercise caution when fighting any chemical fire.
FIREFIGHTING INSTRUCTIONS: Use water spray or fog for cooling exposed containers.
PROTECTION DURING FIREFIGHTING: Do not enter fire area without proper protective equipment, including respiratory protection.
OTHER INFORMATION (FIRE): Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND: Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.
Safety Data Sheet
ACTIVATOR P-35 FG

EMERGENCY PROCEDURES
ENVIRONMENTAL PRECAUTIONS : Keep spilled material away from sewage/drainage systems and waterways. If amounts exceeding the Reportable Quantity (5000 lbs. as phosphoric acid) are released, notification of the National Response Center (800) 424-8802 is required. See section 15 for more information.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN UP : All clean-up personnel must be properly trained. Confinement spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and again when leaving work. Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

CONDITIONS FOR SAFE STORAGE : Store in a dry, cool and well ventilated place. Keep container closed when not in use. Keep/store away from extremely high or low temperatures, direct sunlight, heat and incompatible materials (Strong acid, Strong oxidizers).

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE) : The TLV in section 11 is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>USA OSHA PEL – TWA</th>
<th>USA ACGIH TWA</th>
<th>USA ACGIH – STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Phosphoric acid</td>
<td>1 mg/m³</td>
<td>1mg/m³</td>
<td>3mg/m³</td>
</tr>
</tbody>
</table>

EYE PROTECTION : Wear chemical splash goggles or face shield.

SKIN PROTECTION : Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION : In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION ADDITIONAL MEASURES : Ensure adequate ventilation.

REQUIRED WORK/HYGIENE : Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear colorless liquid with mild odor.

ODOR : Mild odor

ODOR THRESHOLD : Not available

PH : < 2.0
### Safety Data Sheet
#### ACTIVATOR P-35 FG

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting Point / Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flashpoint</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non flammable, Non combustible</td>
</tr>
<tr>
<td>Lower Flammability Limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper Flammability Limit</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>1.3</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient n-Octanol/Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
</tbody>
</table>

#### SECTION 10 – STABILITY AND REACTIVITY

**Reactivity:**
Thermal decomposition generates: Corrosive vapors. If the product is involved in a fire, it can release explosion hydrogen gas. When heated to decomposition, emits toxic fumes. May be corrosive to metals.

**Stability:**
Stable under recommended storage conditions.

**Hazardous Conditions to Avoid:**

**Incompatible Materials:**
Chlorinated products such as bleach, alkaline materials, metals, metal powder, carbides, chlorates, fumigates, nitrates, picrates, strong oxidizers, reducing or combustible organic material. Hazardous gases are evolved on contact with chemicals such as chlorine bleach, cyanides, sulfides and carbides.

**Hazardous Decomposition Products:**

#### SECTION 11 – TOXICOLOGICAL INFORMATION

**Toxicological Information**

**Acute Oral Toxicity:**
LD₅₀ (rat) is greater than 1,530 mg/kg; not acutely toxic by oral exposure. (TFI Product Testing Results, OECD Guideline 425).

**Acute Dermal Toxicity:**
LD₅₀ (rat) is greater than 3,160 mg/kg (ppm); not acutely toxic by dermal exposure. (TFI Product Testing Results, OECD Guideline 402).

**Acute Inhalation Toxicity:**
LC₅₀ (guinea pig, mouse, rat, rabbit) is 61-1,689 mg/m³; highly toxic by inhalation. (TFI Product Testing Results)

**Acute Fish Toxicity:**
96-hour LC₅₀ is 3.0-3.5 mg/L (ppm); moderate toxicity to aquatic organisms. (TFI Product testing Results, OECD Guideline 203).

**Carcinogenicity:**
No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC, ACGIH, NTP, and OSHA.

#### SECTION 12 – ECOLOGICAL INFORMATION

**Ecological Information**

**Aquatic Toxicity:**
Phosphoric Acid
Safety Data Sheet
ACTIVATOR P-35 FG

PERSISTENCE AND DEGRADABILITY: No relevant information available.
BIOACCUMULATIVE POTENTIAL: No relevant information available.
NOTES: Water hazard class 1 (Self assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of this product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or un-neutralized. Rinsing larger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL RECOMMENDATIONS: This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.
ECOLOGY-WASTE MATERIALS: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME: UN-1805, PHOSPHORIC ACID, SOLUTION 8 PG-III
HAZARD CLASS AND LABEL: 8 (Corrosive)
UN NUMBER: UN 1805
PACKAGING GROUP: PG-II
EPA REPORTABLE QUANTITY (RQ): 1000 LBS. (454 KG) as Sulfuric acid 100%.
100 LBS. (45.4 KG) as Hydrogen Fluoride 100%.
MARINE POLLUTANT: Marine Pollutant
EMERGENCY RESPONSE GUIDE: ERG-154

SECTION 15 – REGULATORY INFORMATION

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN: Not listed
TSC STATUS: The ingredients of this product are listed on TSCA (Toxic Substances Control Act) Inventory (40CFR 710.)
SARA SECTION 302: 1,000 lbs. (Sulfuric acid), 100 lbs. (Hydrogen Fluoride)
SARA SECTION 311/312: immediate (acute) health hazard. Reactive hazard. (Sulfuric acid)
SARA SECTION 313: Sulfuric acid (as mist/aerosol only). Hydrochloric acid (as mist/aerosol only). Phosphoric acid, CAS No. 7664-38-2, which is subject to the reporting requirements of section 313 of Title III of the Superfund Amendments Act of 1986 and 40 CFR Part 372.

NFPA HEALTH: 3
NFPA FLAMMABILITY: 0
NFPA REACTIVITY: 1

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION: C: Corrosive, Xn: Harmful.
DSD/DPD RISK (R) PHRASES: R34: Causes severe burns.
R22: Harmful is swallowed.
Safety Data Sheet
ACTIVATOR P-35 FG

DSD/DPD SAFETY (S) PHRASES
S1/2: Keep locked up and out of reach of children.
S18: Handle and open containers with care.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/S37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
S61: Avoid release to the environment.
S64: If swallowed, rinse mouth with water if victim is conscious.

DSD/DPD HAZARD SYMBOL
C: Corrosive, Xn: Harmful

CANADIAN REGULATORY INFORMATION
WHMIS CATEGORY
Class E-TDG: Corrosive, Substance (HF)
Class D2B: Materials that cause other toxic effects (TOXIC).

DOMESTIC SUBSTANCES LIST
(Listed)
(DSL)

INGREDIENT DISCLOSURE LIST
(Listed, This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by the CPR.)

SECTION 16 – OTHER INFORMATION

DISCLAIMER
The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Wesmar Co. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

CERCLA

EINECS
European Inventory of Existing Commercial Chemical Substances

IMDG
International Maritime Code for Dangerous Goods

IARC
International Agency for Research on Cancer

IATA
International Air Transportation Association

ACGIH
American Conference of Governmental Industrial Hygienists

NFPA
National Fire Protection Association (USA)

NTP
National Toxicology Program

SARA
Superfund Amendments and Reauthorization Act

TSCA
Toxic Substances Control Act

HMIS
Hazardous Materials Identification System (USA)

WHMIS
Workplace Hazardous Materials Information System

LC50
Lethal concentration, 50 percent

LD50
Lethal dose, 50 percent

STOT
Systemic Target Organ Toxicity

DATE PREPARED
MAR 1, 2013

DATE REVISED
MAR 1, 2014
SAFETY DATA SHEET
BIOSOL 40

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME : BIOSOL 40
SYNONYMS : Product is a mixture: No synonyms are available.
PRODUCT USE : Mildly Alkaline Material
SUPPLIER : WESMAR CO. INC.
SUPPLIER'S ADDRESS : 5720 204TH ST SW, LYNNWOOD, WA 98036
(206) 783-5344
EMERGENCY RESPONSE PHONE NUMBER : PERS: 1-800-633-8253

SECTION 2 – HAZARD IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE
GHS U.S. – CLASSIFICATION : H302 Harmful if swallowed.
H315 Causes skin irritation
H319 Causes serious eye irritation

LABEL ELEMENTS : GHS – US HAZARD PICTOGRAMS The product is classified and labeled according to the Globally Harmonized System (GHS).

HAZARD PICTOGRAMS :

SIGNAL WORD : WARNING
HAZARD STATEMENTS (GHS-US) : H302 Harmful if swallowed.
H315 Causes skin irritation.
H319 Causes serious eye irritation.

PRECAUTIONARY STATEMENTS (GHS-US) : P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read label before use.
P264 Wash skin and contaminated clothing thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P280 Wear suitable protective gloves/protective clothing/eye protection/face protection.
P301+ IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P305+351+ IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations

OSHA HAZARDS : Target Organ Effect (Glycol Ether DPM), D-Limonene: Combustible Liquid, Target Organ Effect, Skin Sensitizer, Irritant
TARGET ORGANS : Kidney, Liver, Nerves (Glycol Ether DPM).
SAFETY DATA SHEET
BIOSOL 40

CLASSIFICATION SYSTEM : NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA RATINGS (SCALE 0-4) : Health = 2, Fire = 0, Reactivity = 0
HMIS RATINGS (SCALE 0-5) : Health = 2, Fire = 0, Reactivity = 0

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTIC : Mixtures
DESCRIPTION : Mixture of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENT</th>
<th>CAS #</th>
<th>EC #</th>
<th>GHS CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-Limonene (Citrus Terpenes)</td>
<td>20-30</td>
<td>5989-27-5</td>
<td>227-813-5</td>
<td>Flam Liq Cat 3, Acute Tox Oral Cat 5, Skin Irrit Cat 2, Eye Irrit Cat 2A,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Sens Cat 1, Acute Tox Aquatic Cat 1</td>
</tr>
<tr>
<td>Dipropylene glycol methyl ether</td>
<td>5-10</td>
<td>34590-94-8</td>
<td>252-104-2</td>
<td>Flam Liq Cat 4, Reproductive Tox Cat 1B</td>
</tr>
<tr>
<td>Ethylenediamine Tetraacetate Na salt</td>
<td>1-5</td>
<td>64-02-8</td>
<td>200-573-9</td>
<td>Skin Irrit Cat 2, Eye Dam Cat 2A</td>
</tr>
<tr>
<td>Coconut Diethanolamide</td>
<td>10-20</td>
<td>68603-42-9</td>
<td>271-657-0</td>
<td>Skin Irrit Cat 2, Eye Irrit Cat 2B</td>
</tr>
</tbody>
</table>

Irrit = Irritation, Cor = Corrosive, Dam = Damage, Cat = Category, Tox = Toxic, STOT = Specific Target Organ Toxicity.

SECTION 4 – FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. Show the label where possible.

EYE CONTACT : Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Remove contact lenses, if present and easy to do so. Continue rinsing. If irritation persists, get immediate medical attention.

SKIN CONTACT : Remove contaminated clothing and shoes. Wash affected skin area with soap and water. If irritation persists, get immediate medical attention.

SWALLOWING (INGESTION) : If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION : Remove to fresh air. Get immediate medical attention.

OTHER INSTRUCTIONS : Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA : Dry chemical, foam, water or carbon dioxide.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS : In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved, positive pressure, self-contained breathing apparatus (SCUBA) and full protective clothing. Evacuate all non-essential personnel from the danger area.

UNUSUAL FIRE AND EXPLOSION HAZARDS : No further relevant information is available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES : Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.

ENVIRONMENTAL PROCEDURES : Keep spilled material away from sewage/drainage systems and waterways.
SAFETY DATA SHEET
BIOSOL 40

METHODS AND MATERIALS FOR CONTAINE AND CLEAN-UP : All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Use with adequate ventilation. Wear proper protective equipment. Do not mix with water or acids without proper dilution and agitation to prevent a potentially violent reaction.

CONDITIONS FOR SAFE STORAGE : Store in closed, properly labeled containers. Protect containers from heat, physical damage, ignition sources and incompatible materials. Have emergency equipment for fires and spills readily available.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE) : The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL – TWA</th>
<th>ACGIH – TLV</th>
<th>ACGIH – STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>D-Limonene (Citrus Terpenes)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Dipropylene glycol methyl ether</td>
<td>100 ppm, 600mg/m³</td>
<td>100 ppm</td>
<td>150 ppm</td>
</tr>
<tr>
<td>Ethylenediamine Tetraacetate (EDTA)</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Coconut Diethanolamide</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

EYE PROTECTION : Wear chemical splash goggles or face shield.

SKIN PROTECTION : Minimize contact with product. Wear chemical resistant coveralls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION : In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION ADDITIONAL MEASURES : Ensure adequate ventilation.

REQUIRE WORK/HYGIENE : Wash hands eyewash and safety shower facilities should be available in the immediate work area.

REQUIRE WORK/HYGIENE : Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE : Clear amber liquid with citrus odor.

ODOR : Mild odor

ODOR THRESHOLD : Not available

PH : 9.5 - 10.5 AS IS

MELTING POINT/FREEZING POINT : Not available

BOILING POINT : Approx. 212° F.

FLASH POINT : Non flammable, non combustible
SAFETY DATA SHEET
BIOSOL 40

EVAPORATION RATE : Not available
FLAMMABILITY : Non flammable-Non combustible
LOWER FLAMMABILITY LIMIT : Not available
UPPER FLAMMABILITY LIMIT : Not available
VAPOR PRESSURE : Not available
VAPOR DENSITY (AIR=1) : Not available
RELATIVE DESNITY : 0.96
SOLUBILITY IN WATER : Soluble in water
PARTITION COEFFICIENT n-OCTANOL/WATER : Not available
AUTOIGNITION TEMPERATURE : Not available
DECOMPOSITION TEMPERATURE : Not available

SECTION 10 - STABILITY AND REACTIVITY

STABILITY : Stable under recommended storage conditions.
HAZARDOUS CONDITIONS TO AVOID : No decomposition if used according to specifications
INCOMPATIBLE MATERIALS : Keep away from strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS : No dangerous decomposition products known.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION : D-Limonene (Citrus Terpenes)
ACUTE TOXICITY : LD50 Oral (rat): >5000 mg/kg. LD50 Dermal (rabbit): >5,000 mg/kg, RD50 Inhalation (mice): > 1,000 mg/kg.
IRRITATION : Prolonged or repeated exposure can cause drying or dermatitis of skin.
BIOACCUMULATION : No appreciable bio-concentration is expected in the environment.
CARCINOGENICITY : This product is not classified as a carcinogen by OSHA, IARC, ACGIH or NTP.

TOXICOLOGICAL INFORMATION : Dipropylene Glycol Methyl Ether
ACUTE TOXICITY : LD50 values: Oral LD50: 5152 mg/kg (rat). LC50 dermal and inhalation: Not listed.
EYES: Rabbit: Mild irritation: 25 hours.
CARCINOGENICITY : No component of this product present at levels greater than or equal to 0.1% is identified as probable or confirmed human carcinogen by IARC, ACGIH, NTP, and OSHA.

TOXICOLOGICAL INFORMATION : Ethylenediamine Tetraacetate
ACUTE TOXICITY : LD50 Oral (rat): 630 - 1,260 mg/kg,
INHALATION LC50 : No data available
DERMAL LD50 : No data available
OTHER INFORMATION ON ACUTE TOXICITY : No data available

TOXICOLOGICAL INFORMATION : Coconut Diethanolamide
ACUTE TOXICITY : LD50 Oral (rat): > 5,000 mg/kg, LD50 Dermal (rabbit): > 2000 mg/kg.
ACUTE EFFECTS : May be harmful in contact with skin.
CHRONIC EFFECTS : Hazardous by OSHA criteria. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. May cause damage to organs through prolonged or repeated exposure.
SYMPTOMS AND TARGET ORGANS : Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
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SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION
ECOTOXICITY : D-Limonene (Citrus Terpenes)
: There is no information available at this time for this product. However, a spill may produce significant toxicity to aquatic organisms and ecosystems. Some studies have shown that certain bacteria and fungi have the ability to degrade citrus terpenes, decreasing their toxicity to fish. When spilled, this product may act as an oil, causing a film, sheen, emulsion or sludge at or beneath the surface of a body of water.

MOBILITY : Citrus Terpenes volatize rapidly.
PERSISTENCE AND DEGRADABILITY
BIOACCUMULATIVE POTENTIAL : Bio-concentration is not expected to occur.

ECOLOGICAL INFORMATION
ECOTOXICITY (aquatic and terrestrial, where available):
ACUTE FISH TOXICITY : LC50 / 96 hours Fathead Minnow - >10,000 mg/L
TOXICITY TO DAPHNIA : EC50 / 48 hours Water flea - 1.919 mg/L
PERSISTENCE AND DEGRADABILITY
BIOACCUMULATIVE POTENTIAL : No data available.

ECOLOGICAL INFORMATION
ECOTOXICITY : Dipropylene Glycol Methyl Ether
PERSISTENCE AND DEGRADABILITY
BIOACCUMULATIVE POTENTIAL : No data available.

ECOLOGICAL INFORMATION
ECOTOXICITY : Ethylenediamine Tetraacetate
PERSISTENCE AND DEGRADABILITY
BIOACCUMULATIVE POTENTIAL : No data available.

ECOLOGICAL INFORMATION
ACUTE TOXICITY : Coconut Diethanolamide
LC50 Algae: < 10 mg/l 72 hours, LC50 Daphnia: < 10 mg/l 48 hours, LC50 Fish: < 10 mg/l 96 hours
PERSISTENCE AND DEGRADABILITY : Readily biodegradable
BIOACCUMULATIVE POTENTIAL : No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL : This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME : Not Hazardous
HAZARD CLASS AND LABEL : Not Applicable.
UN NUMBER : Not Applicable.
PACKAGING GROUP : Not Applicable.
EPA REPORTABLE QUANTITY (RQ) : Not Applicable.
MARINE POLLUTANT : Not listed.
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EMERGENCY RESPONSE GUIDE : Not Applicable.

SECTION 15 – REGULATORY INFORMATION

U.N. GHS CLASSIFICATION & LABELING INFORMATION: See Section 2 for GHS Hazard Information.

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN : Not listed.
TSCA STATUS : The ingredients of this product are listed in TSCA inventory (40CFR 710.)
SARA SECTION 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA SECTION 312 : Chronic health hazard (Glycol Ether DPM).
SARA SECTION 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

NFPA HEALTH : 2
NFPA FLAMMABILITY : 0
NFPA REACTIVITY : 0

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION : Xi: Irritant.
DSD/DPD RISK (R) PHRASES : R22: Harmful if swallowed.
 : R36/38: Irritating to eyes and skin.
DSD/DPD SAFETY (S) PHRASES : S1/2: Keep locked up and out of reach of children.
 : S24/25: Avoid contact with eyes and skin.
 : S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 : S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
 : S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
 : S61: Avoid release to the environment.
 : S62: If swallowed, do not induce vomiting.
 : S64: If swallowed, rinse mouth with water if victim is conscious.

DSD/DPD HAZARD SYMBOL : Xi: Irritant

CANADIAN REGULATORY INFORMATION:
WHMIS CATEGORY : D28: Materials that cause other toxic effects (TOXIC).
 : Note: D-limonene and Diethylene Glycol Methyl Ether are WHMIS B3 (combustible) chemicals, but not at the levels present in this product.

DOMESTIC SUBSTANCES LIST (DSL) INGREDIENT DISCLOSURE LIST : Listed

SECTION 16 – OTHER INFORMATION

DISCLAIMER : The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Wesmar Co. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the
SAFETY DATA SHEET
BIOSOL 40

specific context of their intended use.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Commercial Chemical Substances</td>
</tr>
<tr>
<td>IMDG</td>
<td>International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
</tr>
<tr>
<td>IATA</td>
<td>International Air Transportation Association</td>
</tr>
<tr>
<td>ACGIH</td>
<td>American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>NFPA</td>
<td>National Fire Protection Association (USA)</td>
</tr>
<tr>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act</td>
</tr>
<tr>
<td>TSCA</td>
<td>Toxic Substances Control Act</td>
</tr>
<tr>
<td>HMIS</td>
<td>Hazardous Materials Identification System (USA)</td>
</tr>
<tr>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50</td>
<td>Lethal dose, 50 percent</td>
</tr>
<tr>
<td>STOT</td>
<td>Systemic Target Organ Toxicity</td>
</tr>
<tr>
<td>DATE PREPARED</td>
<td>MAR 1, 2006</td>
</tr>
<tr>
<td>DATE REVISED</td>
<td>MAR 1, 2015</td>
</tr>
</tbody>
</table>
MATERIAL SAFETY DATA SHEET

I. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CHLOR CLING 937
Manufacturer: CHZO INC
8820 OLD HWY 99 SE
Olympia, WA 98501 USA
(360) 943-6063 800-562-6184

IN AN EMERGENCY CALL CHEMTREC AT 1-800-424-9300

II. INGREDIENT INFORMATION

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS Number</th>
<th>% By Weight</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium xylenesulfonate</td>
<td>1300-72-7</td>
<td>0 - 5</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Sodium hypochlorite</td>
<td>7681-52-9</td>
<td>0 - 5</td>
<td>2 mg/m3</td>
<td>2 mg/m3</td>
</tr>
<tr>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
<td>5 - 10</td>
<td>2 mg/m3</td>
<td>2 mg/m3</td>
</tr>
<tr>
<td>Sodium benzene sulfonates</td>
<td></td>
<td>5 - 10</td>
<td>NA</td>
<td>NA</td>
</tr>
<tr>
<td>Alkyldimethylamine oxide</td>
<td>1643-20-5</td>
<td>0 - 5</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

This is a proprietary chemical mixture.

III. HAZARDS IDENTIFICATION

HMSI Rating:

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMMABILITY</th>
<th>REACTIVITY</th>
<th>PROTECTIVE EQUIPMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>0</td>
<td>1</td>
<td>0</td>
</tr>
</tbody>
</table>

Protective Equipment Key:

A safety glasses
B safety glasses and gloves
C safety glasses, gloves and an apron
D face shield, gloves and an apron
E safety glasses, gloves and a dust respirator
F safety glasses, gloves, apron and a dust respirator

G safety glasses, a vapor respirator
H splash goggles, gloves, apron and a vapor respirator
I safety glasses, gloves and a dust/vapor respirator
J splash goggles, gloves, apron and a dust/vapor respirator
K air airline hood or mask, gloves, full suit and boots
L - Z custom PPE

Eyes: This material will cause severe eye irritation or burning upon direct contact. Permanent eye damage can occur. Exposure to vapor, mist or dust will also be irritating.

Skin: This material will cause irritation and/or burning of skin. Prolonged or repeated contact may cause irreversible damage. Persons with pre-existing skin disorders may be more susceptible to the effects of this material.

Ingestion: This material is toxic. Ingestion of this material will cause irritation of the digestive tract. Small amounts of this material may be aspirated into the respiratory system during ingestion or vomiting and may cause mild to severe pulmonary injury.

Inhalation: Inhalation may cause irritation or damage to the mucous membranes and respiratory tract. Symptoms may include coughing, bloody nose, and sneezing. Severe overexposures may cause lung damage.

Carcinogenicity: NTP: False OSHA: False

IV. EMERGENCY AND FIRST AID MEASURES

Eyes: Flush with large amounts of fresh water for 15 minutes, lifting upper and lower lids occasionally. Contact a physician for further directions.

Skin: Remove contaminated clothing and launder before re-use. Flush exposed areas with large amounts of fresh water. If skin feels slippery, continue flushing until stick feeling is gone. Contact a physician if irritation persists.

Ingestion: Do not induce vomiting. Give several glasses of water for dilution effect. If vomiting occurs, administer additional fluids. Never give anything by mouth to an unconscious person. Contact a physician immediately for further instructions.

Inhalation: Move victim to fresh air. Administer oxygen if breathing is difficult, or artificial respiration if breathing has stopped. Contact a physician if irritation persists.

Medical Conditions: None known.

Aggravated By Exposure: None known.

V. FIRE FIGHTING MEASURES

Firefighters should wear appropriate protective equipment including respiratory protection as conditions warrant. Stop spill/release if it can be done without risk. Move undamaged containers from fire area if it can be done without risk. Water spray may be useful in cooling equipment and containers exposed to heat and flame. Avoid spreading burning material with water used for cooling purposes.

Flash Point (closed cup) °F: >212
Extinguishing Media: Foam, dry chemical, water spray.

Special Fire Fighting Procedures: Unusual Fire & Explosion Hazards: None known.

VI. ACCIDENTAL RELEASE INFORMATION

Spill Response: Only trained personnel with proper protective gear should be permitted in the area. Stop spill at source; reclaim material if possible for reuse. Containerize contaminated material for disposal. After all visible traces have been removed, flush area thoroughly with water. Dispose of all waste in accordance with local, state, and federal regulations. Care must be taken when using or disposing of chemical materials and/or their containers to prevent environmental contamination.

Waste Handling Procedure: See Section XIII

MSDS for: CHLOR CLING 937
1 of 2
VII. HANDLING AND STORAGE

Handling: This product is a strong oxidizer. DO NOT mix with other chemicals; may cause evolution of poisonous and explosive gas. Eyewash fountain recommended in work area. Do not use pressure to empty container. Do not cut, grind, weld, or drill on or near this container. Containers, even when empty, can contain product residues and vapors; always obey hazard warnings and handle empty containers as if they were full.

Storage: Store this material in a cool, dry, well ventilated area away from heat and all sources of ignition. Keep container tightly closed when not in use. Store only in approved containers that have been properly labeled. Protect container from physical damage.

Shelf Life (months): 9

VIII. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Eye Protection: Use safety glasses when handling product concentrate. Where contact is likely or probable, splash-proof chemical goggles are recommended. If vapors cause eye discomfort, use a full-face respirator.

Skin Protection: Impervious gloves, impervious apron, face shield, and boots should be worn when handling this product concentrate. During normal use of the diluted product where probable or repeated contact could occur, use protective clothing; selection of specific items such as boots, apron, or full-body suit will depend on the operation.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required, use an approved air-purifying respirator. When exposure guidelines may be greatly exceeded, use an approved positive pressure self-contained breathing apparatus. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

Environmental Controls: Maintain airborne concentrations below the exposure guidelines. If airborne concentrations are unknown it should be assumed they are at or above exposure guidelines.

Hygiene: Never touch face with hands or gloves that may be contaminated with product. Wash thoroughly with soap and water after handling product.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Specific Gravity: 1.17
Appearance and Odor: Light yellow, moderate chlorine odor.

IX. STABILITY AND REACTIVITY

General: This product is considered a stable material under normal and anticipated storage and handling conditions.

Incompatibility. Incompatibilities include:
Acids and acidic compounds, strong reducing agents, steel, aluminum, alcohols, aldehydes.

Hazardous Decomposition Products: Hazardous decomposition products include:
Release of chlorine gas may occur violently, chlorinated organic compounds, oxygen.

XI. TOXICOLOGICAL INFORMATION

Toxicological properties of this chemical mixture have not been thoroughly investigated.

XII. ECOLOGICAL PROPERTIES

The properties of this chemical mixture have not been thoroughly investigated, although it is known to be toxic to aquatic organisms. Any run off must be contained and collected for proper disposal.

XIII. DISPOSAL INFORMATION

Dispose of all product and wastes thereof in accordance with local, state, and federal regulations. Empty containers may contain product residues which could contaminate the environment if improperly managed. It is important to handle empty containers carefully, and to dispose of them in accordance with all pertinent regulations.

XIV. TRANSPORTATION INFORMATION

UN 3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (Sodium Hydroxide, Sodium Hypochlorite), B, II

RQ: NE

XV. REGULATORY INFORMATION

This product is considered hazardous under the criteria of the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200.

XVI. OTHER INFORMATION

The information on this Material Safety Data Sheet reflects the latest information and data that we have on hazards, properties, and handling of this product under the recommended conditions of use. As the use of this material is subject to conditions beyond the sellers control, seller makes no warranty express or implied as to this material or its use other than its chemical analysis when packed. The total liability of seller shall be limited to the purchase price of the product.

Created: 4/19/10 NA = Not Applicable   Revised: 4/19/10 NE = None Established Supersedes: 4/19/10 Generated: 4/19/2010
SAFETY DATA SHEET
DETSOL CWF

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME : DETSOL CWF
SYNONYMS : Product is a mixture: No synonyms are available.
PRODUCT USE : Moderately Alkaline Material
SUPPLIER : WESMAR CO. INC.
SUPPLIER’S ADDRESS : 5720 204TH ST SW, LYNNWOOD, WA 98036
(206) 783-5344
EMERGENCY RESPONSE PHONE : PERS: 1-800-633-8253

SECTION 2 – HAZARD IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE
GHS U.S. – CLASSIFICATION : H302 Harmful if swallowed.
: H315 Causes skin irritation
: H319 Causes serious eye irritation

LABEL ELEMENTS : GHS – US HAZARD PICTOGRAMS The product is classified and labeled according to the Globally Harmonized System (GHS).

HAZARD PICTOGRAMS :

SIGNAL WORD : WARNING
HAZARD STATEMENTS (GHS-US) : Not established
: H302 Harmful if swallowed.
: H315 Causes skin irritation.
: H319 Causes serious eye irritation.

PRECAUTIONARY STATEMENTS (GHS-US) : P101 If medical advice is needed, have product container or label at hand.
: P102 Keep out of reach of children.
: P103 Read label before use.
: P264 Wash skin and contaminated clothing thoroughly after handling.
: P270 Do not eat, drink or smoke when using this product.
: P280 Wear suitable protective gloves/protective clothing/eye protection/face protection.
: P301+: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
: P302+P352 : IF ON SKIN: Wash with plenty of soap and water.
: P305+351+: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
: P332+P333 If skin irritation occurs: Get medical advice/attention.
: P337+P333 If eye irritation persists: Get medical advice/attention.
: P501 Dispose of contents/container in accordance with local/regional/national/international regulations

CLASSIFICATION SYSTEM : NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme.
NFPA RATINGS (SCALE 0-4) : Health = 2, Fire = 0, Reactivity = 0
HMIS RATINGS (SCALE 0-5) : Health = 2, Fire = 0, Reactivity = 0
SAFETY DATA SHEET
DETSOL CWF

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTIC
DESCRIPTION
Mixtures

Mixtures of the substances listed below with nonhazardous additions.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>PERCENT</th>
<th>CAS #</th>
<th>EINECS #</th>
<th>GHS CLASSIFICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>1-5</td>
<td>6834-92-0</td>
<td>229-912-9</td>
<td>Skin Corr. Cat 1C, Eye Corr. Cat 1</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>1-5</td>
<td>7320-34-5</td>
<td>230-785-7</td>
<td>Eye Irrit Cat 2A</td>
</tr>
<tr>
<td>Trisodium Phosphate Crystals</td>
<td>1-5</td>
<td>10101-89-0</td>
<td>231-509-8</td>
<td>Skin Irrit Cat 2</td>
</tr>
<tr>
<td>Sodium Dodecylbenzene Sulfonate</td>
<td>1-5</td>
<td>25155-30-0</td>
<td>246-680-4</td>
<td>Skin Irrit Cat 4, Eye Dam Cat 2</td>
</tr>
<tr>
<td>Nonylphenol Ethoxylate Phosphate</td>
<td>1-5</td>
<td>51811-79-1</td>
<td>200-432-1</td>
<td>Acute Tox Cat 4, STOT SE Cat 3</td>
</tr>
<tr>
<td>PBC</td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit Cat 2, Eye Irrit Cat 2A</td>
</tr>
<tr>
<td>Cocoamidopropyl Betaine</td>
<td>1-5</td>
<td>61789-40-0</td>
<td>263-058-8</td>
<td>Eye Irrit Cat 2B</td>
</tr>
<tr>
<td>Sodium Xylene Sulfonate</td>
<td>0.1-1</td>
<td>1300-72-7</td>
<td>215-090-9</td>
<td>Skin Irrit Cat 2, Eye Irrit Cat 2A</td>
</tr>
</tbody>
</table>


SECTION 4 – FIRST AID MEASURES

DESCRIPTION OF FIRST AID MEASURES

GENERAL
Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice. Show the label where possible.

EYE CONTACT
Immediately flush eyes with water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Get immediate medical attention.

SKIN CONTACT
Remove contaminated clothing and shoes. Wash affected skin area with soap and water. Delayed skin damage is possible if product is not completely washed off. Get immediate medical attention.

SWALLOWING (INGESTION)
If ingested, dilute swallowed material by drinking water. DO NOT INDUCE VOMITING. If vomiting occurs spontaneously, keep airway clear. Give more water when vomiting stops. Never give anything by mouth to an unconscious person. Get immediate medical attention.

INHALATION
 OTHER INSTRUCTIONS
Remove to fresh air. Get immediate medical attention.
Rescue personnel must wear appropriate protective equipment during removal of victims from contaminated areas. Treat symptomatically and supportively.

SECTION 5 – FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA
Dry chemical, foam, water or carbon dioxide.

SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE FIGHTERS
In the event of a fire, wear a NIOSH (USA) or CEN (EU) approved, positive pressure, self-contained breathing apparatus (SCUBA) and full protective clothing. Evacuate all non-essential personnel from the danger area.

UNUSUAL FIRE AND EXPLOSION HAZARDS
No further relevant information is available.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT & EMERGENCY PROCEDURES
Restrict access to keep out unauthorized or unprotected personnel. Wear protective equipment. Avoid inhalation and direct contact.

ENVIRONMENTAL PROCEDURES
Keep spilled material away from sewage/Drainage systems and waterways.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP
All clean-up personnel must be properly trained. Confine the spill and remove incompatible materials and ignition sources. Ensure adequate ventilation. Secure the
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source of the leak if conditions are safe. Neutralize spill and collect using an appropriate absorbent material such as clay or vermiculite. Place waste in an appropriate container for disposal. Use care during clean-up to avoid exposure to the material and injury from broken containers.

SECTION 7 – HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Use with adequate ventilation. Wear proper protective equipment. Do not mix with water or acids without proper dilution and agitation to prevent a potentially violent reaction.

CONDITIONS FOR SAFE STORAGE: Store in closed, properly labeled containers. Protect containers from heat, physical damage, ignition sources and incompatible materials. Have emergency equipment for fires and spills readily available.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

TLV (THRESHOLD LIMIT VALUE): The TLV in section in section III is the ACGIH/TLV-TWA (threshold limit value/time weighted average concentration for an eight hour work day). The STEL is the short term exposure limit and the (Ceil) is the ceiling limit.

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>OSHA PEL – TWA</th>
<th>ACGIH – TLV</th>
<th>ACGIH – STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium Metasilicate</td>
<td>8hr Recommended: 3mg/m³</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Tetrapotassium Pyrophosphate</td>
<td>2.5mg/m³</td>
<td>2.5 mg/m³</td>
<td>7.6 mg/m³</td>
</tr>
<tr>
<td>Trisodium Phosphate Crystals</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Sodium Dodecylbenzene Sulfonate</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Nonylphenol Ethoxylate Phosphate</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Cocomidopropyl Betaine</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
<tr>
<td>Sodium Xylene Sulfonate</td>
<td>Not Established</td>
<td>Not Established</td>
<td>Not Established</td>
</tr>
</tbody>
</table>

EYE PROTECTION: Wear chemical splash goggles or face shield.

SKIN PROTECTION: Minimize contact with product. Wear chemical resistant overalls, boots, gloves, apron and/or suitable long-sleeved clothing.

RESPIRATORY PROTECTION: In case of brief exposure use respiratory filter device. In case of intensive or longer exposure, use respiratory protective device that is independent of circulating air.

VENTILATION: Ensure adequate ventilation.

ADDITIONAL MEASURES: Emergency eyewash and safety shower facilities should be available in the immediate work area.

REQUIRED WORK/HYGIENE: Wash hands thoroughly after handling. Keep away from all food stuffs, beverages and feed. Do not eat, drink or smoke in work area.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear amber liquid.

ODOR: Mild odor

ODOR THRESHOLD: Not available

PH: 11.7 ± 0.3 AS IS

MELTING POINT/FREEZING POINT: Not available

BOILING POINT: Approx. 212° F.

FLASH POINT: Non flammable, non combustible
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EVAPORATION RATE : Not available
FLAMMABILITY : Non flammable-Non combustible
LOWER FLAMMABILITY LIMIT : Not available
UPPER FLAMMABILITY LIMIT : Not available
VAPOR PRESSURE : Not available
VAPOR DENSITY (AIR=1) : Not available
RELATIVE DENSITY : 1.07
SOLUBILITY IN WATER : Soluble in water
PARTITION COEFFICIENT n-Octanol/Water : Not available
AUTOIGNITION TEMPERATURE : Not available
DECOMPOSITION TEMPERATURE : Not available

SECTION 10 – STABILITY AND REACTIVITY

STABILITY : Stable under recommended storage conditions.
HAZARDOUS CONDITIONS TO AVOID : No decomposition if used according to specifications
INCOMPATIBLE MATERIALS : Keep away from strong acids.
HAZARDOUS DECOMPOSITION PRODUCTS : No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION : Sodium Metasilicate
ACUTE TOXICITY : LD50 Oral: 1280mg/kg (Rat), 2400mg/kg (Mouse)
CHRONIC TOXICITY : No data were available regarding chronic exposure, reproductive or teratological effects, or carcinogenicity for sodium metasilicate.
CARCINOGENICITY : This product is not classified as a carcinogen by NTP, IARC or OSHA.

TOXICOLOGICAL INFORMATION : Tetrapotassium Pyrophosphate
ACUTE TOXICITY : Oral - rat LD50: > 2980 mg/kg; slightly toxic
Dermal - rabbit LD50: > 7940 mg/kg; practically nontoxic
Eye Irritation - rabbit: 11.1/110.0; moderately irritating
Skin Irritation - rabbit: 0.5/8.0 (24-hr exposure); practically nonirritating.

TOXICOLOGICAL INFORMATION : Trisodium Phosphate Crystals
ACUTE TOXICITY : Oral - rat LD50: 6,500 mg/kg; practically nontoxic
Dermal - rabbit LD50: > 7,940 mg/kg; practically nontoxic
Eye Irritation - rabbit (4-hr exp.): corrosive
Skin Irritation - rabbit: 3.3/8.0; moderately irritating

TOXICOLOGICAL INFORMATION : Sodium Dodecylbenzene Sulfonate
ACUTE TOXICITY : LD50 Oral rat: 438 mg/kg.
INHALATION TOXICITY : No data available
DERMAL TOXICITY : No data available
SKIN CORROSION/IRRITATION : Skin – rabbit Result: Skin irritation - 24 h
SERIOUS EYE DAMAGE/IRRITATION : Eyes – rabbit Result: Severe eye irritation - 24 h
RESPIRATORY/SKIN SENSITISATION : No data available
GERM CELL MUTAGENICITY : No data available
CARCINOGENICITY : No components of this product present at levels greater than or equal to 0.1% are
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identified as probable, possible or confirmed human carcinogen by IARC ACGIH, NTP or OSHA.

TOXICOLOGICAL INFORMATION
ACUTE TOXICITY : Nonylphenol Ethoxylate Phosphate
INHALATION LC50 : LD50 Oral (rat): 5000-15,000 mg/kg,
DERMAL LD50 : No data available
CARCINOGENICITY : This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.
MUTAGENICITY : Not mutagenic in Ames test.

TOXICOLOGICAL INFORMATION
ACUTE TOXICITY : Cocoamidopropyl Betaine
INHALATION LC50 : LD50 Oral (rat): 5000-15,000 mg/kg.
DERMAL LD50 : No data available
CARCINOGENICITY : This product is not considered to be a carcinogen by IARC, ACGIH, NTP or OSHA.
MUTAGENICITY : Not mutagenic in Ames test.

TOXICOLOGICAL INFORMATION
ACUTE TOXICITY : Sodium Xylene Sulfonate
INHALATION LC50 : Absorbed through skin and/or eye contact.
DERMAL LD50 : LD50 Oral (rat): 2500 mg/kg,
CHRONIC EFFECTS ON HUMANS : Contains material which may cause damage to the following organs: liver
SPECIAL REMARKS ON TOXICITY : TDL (rat): Route: skin; Dose: 3380 mg/kg/17D intermittent; Toxic effects: changes in liver weight TDL (rat): Route: skin; Dose: 35 gm/kg/14W intermittent; Toxic effects: dermatitis, other (skin and appendages). (Sodium Xylene Sulfonate).
TO ANIMALS

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION
ECOTOXICITY (Aquatic Toxicity) : Sodium Metasilicate
BIODEGRADATION : This material has exhibited moderate toxicity to aquatic organisms.
PERSISTENCE : This material is inorganic and not subject to biodegradation.
BIOCONCENTRATION : This material is not expected to bio-concentrate in organisms.

ECOLOGICAL INFORMATION
ECOTOXICITY : Tetrapotassium Pyrophosphate
ECOTOXICITY : 48-hr EC50 Daphnia magna: > 100 mg/L; Practically Nontoxic
96-hr LC50 Mysis Shrimp > 100 mg/L; Practically Nontoxic
96-hr LC50 Rainbow trout: > 100 mg/L; Practically Nontoxic.

ENVIRONMENTAL FATE : Phosphates: Inorganic phosphates, including this product, at high concentrations in the environment have the potential to cause eutrophication in aquatic systems. This condition is characterized by excessive algal growth, and subsequent decreases in oxygen levels. In general, proper use and disposal of this product should pose no adverse ecological risk.

ECOLOGICAL INFORMATION
ECOTOXICITY : Trisodium Phosphate Crystals
ECOTOXICITY : Invertebrate: 48-hr EC50 Daphnia magna: >1000 mg/L; Practically Nontoxic.
Warm-water Fish: 96-hr LC50 Bluegill sunfish: 440 mg/L; Practically Nontoxic.
Coldwater Fish: 96-hr LC50 Rainbow trout: 260 mg/L; Practically Nontoxic.
No definitive algal toxicity data was available for this material.

ENVIRONMENTAL FATE : Phosphates: Inorganic phosphates, including this product, at high concentrations in the environment have the potential to cause eutrophication in aquatic systems. This condition is characterized by excessive algal growth, and subsequent decreases in oxygen levels. In general, proper use and disposal of this product should pose no adverse ecological risk.

ECOLOGICAL INFORMATION
ECOTOXICITY : Sodium Dodecylbenzene Sulfonate

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TOXICITY TO FISH: Mortality NOEC - Oncorhynchus kisutch - 3.1 mg/l - 3 d
Mortality LOEC - Oncorhynchus kisutch - 5.6 mg/l - 3 d
LC50 - Oncorhynchus mykiss (rainbow trout) - 3.2 - 5.6 mg/l - 96 h

ECOLOGICAL INFORMATION: Nonylphenol Ethoxylate Phosphate
ECOTOXICITY: Not available
PERSISTENCE AND DEGRADABILITY: No data available
BIOACCUMULATIVE POTENTIAL: No data available

ECOLOGICAL INFORMATION: Cocoamidopropyl Betaine
ECOTOXICITY: Not available
PERSISTENCE AND DEGRADABILITY: No data available
BIOACCUMULATIVE POTENTIAL: No data available

ECOLOGICAL INFORMATION: Sodium Xylene Sulfonate
ECOTOXICITY: Not available
BODS AND COD: Not available
PRODUCTS OF BIODEGRADATION: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

TOXICITY OF THE PRODUCTS OF BIODEGRADATION: The product itself and its products of degradation are not toxic.

SECTION 13 – DISPOSAL CONSIDERATIONS

WASTE DISPOSAL: This product must be disposed of in accordance with Federal, state and local environmental regulations. Discarded materials may be considered hazardous waste due to pH/corrosivity. It is the responsibility of the product user to determine at the time of disposal whether a material containing, or derived from this product, should be classified as a hazardous waste.

SECTION 14 – TRANSPORTATION INFORMATION

DOT/IMDG/ IATA PROPER SHIPPING NAME: Not Hazardous
HAZARD CLASS AND LABEL: Not Applicable.
UN NUMBER: Not Applicable.
PACKAGING GROUP: Not Applicable.
EPA REPORTABLE QUANTITY (RQ): Not Applicable.
MARINE POLLUTANT: Not listed.
EMERGENCY RESPONSE GUIDE: Not Applicable.

SECTION 15 – REGULATORY INFORMATION

U.N. GHS CLASSIFICATION & LABELING INFORMATION: See Section 2 for GHS Hazard Information

U.S. FEDERAL REGULATORY INFORMATION:
LISTED CARCINOGEN: Not listed.
TSCA STATUS: The ingredients of this product are listed in TSCA inventory (40CFR 710.)
SARA SECTION 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
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SARA SECTION 312 : N/A
SARA SECTION 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

NFPA HEALTH : 2
NFPA FLAMMABILITY : 0
NFPA REACTIVITY : 0

EUROPEAN UNION REGULATORY INFORMATION:
EC CLASSIFICATION : Xi: Irritant
DSD/DPD RISK (R) PHRASES : R22: Harmful if swallowed.
R36/38: Irritating to eyes and skin.

DSD/DPD SAFETY (S) PHRASES : S1/2: Keep locked up and out of reach of children.
S24/25: Avoid contact with eyes and skin.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S45: In case of accidents or if you feel unwell, seek medical advice immediately. Show label where possible.
S61: Avoid release to the environment.
S62: If swallowed, do not induce vomiting.
S64: If swallowed, rinse mouth with water if victim is conscious.

DSD/DPD HAZARD SYMBOL : Xi: Irritant

CANADIAN REGULATORY INFORMATION:
WHMIS CATEGORY : D2B: Materials that cause other toxic effects (TOXIC).
DOMESTIC SUBSTANCES LIST (DSL) : Listed
INGREDIENT DISCLOSURE LIST : Listed

SECTION 16 – OTHER INFORMATION

DISCLAIMER : The information contained herein has been compiled from sources believed to be reliable and accurate to the best of our knowledge at this date. It is provided without warranty, expressed or implied, as to the results of use of this information or to the product to which it relates. Wesmar Co. assumes no responsibility for injury to any person or property resulting from any use of the material. Each user assumes the risk in their use of this product and should review the data and recommendations in the specific context of their intended use.

EINECS : European Inventory of Existing Commercial Chemical Substances
IMDG : International Maritime Code for Dangerous Goods
IARC : International Agency for Research on Cancer
IATA : International Air Transportation Association
ACGIH : American Conference of Governmental Industrial Hygienists
NFPA : National Fire Protection Association (USA)
NTP : National Toxicology Program
SARA : Superfund Amendments and Reauthorization Act
TSCA : Toxic Substances Control Act
HMIS : Hazardous Materials Identification System (USA)
WHMIS : Workplace Hazardous Materials Information System
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LC50 : Lethal concentration, 50 percent
LD50 : Lethal dose, 50 percent
STOT : Systemic Target Organ Toxicity
DATE PREPARED : MAR 1, 2006
DATE REVISED : MAR 1, 2015