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DEPARTMENT OF  
ECOLOGY  
State of Washington

# Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to Ground Water by Land Treatment or Application

This application is for a state waste discharge permit as required by Chapter 90.48 RCW and Chapter 173-216 WAC. Permit applications provide Ecology with information on pollutants in the waste stream, materials that may enter the waste stream, the flow characteristics of the discharge, and the site characteristics at the point of discharge.

Ecology may request additional information to clarify the conditions of this discharge. The applicant should reference information previously submitted to Ecology that applies to this application in the appropriate section.

## SECTION A. GENERAL INFORMATION

1. Applicant name: Schenk Packing Co., Inc.
2. Facility name:  
(if different from applicant) \_\_\_\_\_
3. Applicant mail address: 8204 288th St. NW  
Street  
Stanwood, WA 98292  
City/State Zip
4. Facility location address:  
(if different from above) Same  
Street  
\_\_\_\_\_  
City/State Zip
5. UBI No. 600143628  
Sometimes called a registration, tax, "C," or resale number, the Unified Business Identifier (UBI) number is a nine-digit number used to identify persons engaging in business activities. The number is assigned when a person completes a Master Business Application to register with or obtain a license from state agencies. The Departments of Revenue, Licensing, Employment Security, Labor and Industries, and the Corporations Division of the Secretary of State are among the state agencies participating in the UBI program.
6. *Latitude/longitude of the processing facility as decimal degrees (NAD83/WGS84):*  
48.257308 N / -122.344493 W

FOR ECOLOGY USE ONLY

Check One

New/Renewal



Modification



Date application received

Application/Permit no.

Date application accepted

Date fee paid

7. Person to contact who is familiar with the information contained in this application:

Miguel R. Garcia

Waste Water Manager

Name

Title

360-629-3939

360-629-4451

Telephone number

Fax number

8. Check One:

☒ **Permit renewal** (including renewal of temporary permits authorized by RCW 90.48.200)

Does this application request a greater amount of wastewater discharge, a greater amount of pollutant discharge, or a discharge of different pollutants than specified in the last permit application for this facility? ☐ YES ☒ NO

For permit renewals, the current permit is an attachment, by reference, to this application.

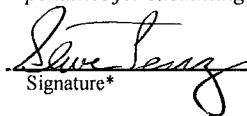
☐ **Permit modification**

☐ **Existing  
unpermitted discharge**

☐ **Proposed discharge**

**Anticipated date of discharge:** \_\_\_\_\_

*I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and/or imprisonment for knowing violations.*

  
Signature\*

11/28/18  
Date

President  
Title

Steve Lenz  
Printed name

\*Applications must be signed as follows: Corporations, by a principal executive officer of at least the level of vice-president; partnership, by a general partner; sole proprietorship, by the proprietor. If these titles do not apply to your organization, the person who makes budget decisions for this facility must sign the application.

The application signatory may delegate signature authority for submittals required by the permit, such as monthly reports, to a suitable employee. You can delegate this authority to a qualified individual or to a position, which you expect to fill with a qualified individual. If you wish to delegate signature authority, please complete the following:

\_\_\_\_\_  
Signature of delegated employee

\_\_\_\_\_  
Date

\_\_\_\_\_  
Title or function at the facility

\_\_\_\_\_  
Printed name

## SECTION B. PRODUCT INFORMATION

- Briefly describe all manufacturing processes and products, and/or commercial activities at this facility. Provide the applicable Standard Industrial Category (SIC) and the North American Industry Classification System (NAICS) Code(s) for each activity (see *North American Industrial Classification System*, 2007 ed.). You can find the 1997 NAICS codes and the corresponding 1987 Standard Industry Category (SIC) codes at (<http://www.census.gov/epcd/naics/frames3.htm>).

Description: Schenk Packing Co., Inc is a Cattle harvest facility that processes Dairy Cows, Beef Cows, And Bulls. Products that are produced are Boneless Beef, Beef Cuts, and Offal Items. Hides are sold for further processing. Viscera, and Bones are sold unprocessed for rendering.

SIC Code: 2011

NAICS Code: 311612

- List raw materials and products:

Type	RAW MATERIALS	Quantity
<i>Potatoes (Example)</i>		<i>20 million tons per year</i>
Cattle		73,000 Cattle per year
Type	PRODUCTS	Quantity
<i>French fries (Example)</i>		<i>10 million pounds per year</i>
Beef Products		83.0 Million Pounds Per Year

## SECTION C. PLANT OPERATIONAL CHARACTERISTICS

1. For each process listed in B.1 that generates wastewater, list the process, assign the waste stream a name and ID #, and describe whether it is a batch or continuous flow.

Process	Waste Stream Name	Waste Stream ID#	Batch (B) or Continuous (C) Process
<i>Receiving raw potatoes (Example)</i>	<i>Mud Water</i>	<i>1</i>	<i>C</i>
Harvesting Cattle	Waste Water	#1	(B)

2. On a separate sheet, produce a schematic drawing showing production processes and water flow through the facility and wastewater treatment devices (*label as attachment C2*). The drawing should indicate the source of intake water and the operations contributing wastewater to the effluent and should label the treatment units. Construct the water balance by showing average flows between intakes, operations, treatment units, and points of discharge to land. If a water balance cannot be determined (*e.g., for certain mining activities*), provide a description of the nature and amount of any sources of water and any collection or treatment measures.

3. What is the highest daily discharge flow from the processing facility: 61890 avg gallons per Day  
(Specify the time period for the value given)

What is the highest daily discharge flow to the sprayfields/infiltration basin: April 2, 2017 inches/acre/month OR  
(Specify the time period for the value given) 91,095 gallons per day *163,500 9/21/18*

What is the highest average monthly discharge flow (daily flows averaged over a month) from the processing facility: 61,640 gallons/day?  
(Specify the time period for the value given) Or 1.911 Million per month of march, 2018

What is the highest average monthly discharge flow to the sprayfields:   inches/acre/month OR  
(Specify the time period for the value given) 69,935 gallons per day  
For a total of 2,098,050 for the month of September

4. Describe any planned wastewater treatment or sprayfield/infiltration improvements and the schedule for the improvements or changes. (*Use additional sheets, if necessary and label as attachment C4.*)  
Please See Attachment C4

5. If production processes are subject to seasonal variations, provide the following information. List discharge for each wastestream in gallons or million gallons per month. The combined value for each month should equal the estimated total monthly flow. Please indicate the proper unit by checking one of the following boxes:

☐ gallons per day ☐ gallons per month ☒ million gallons per month

Waste Stream ID#	MONTHS											
	J	F	M	A	M	J	J	A	S	O	N	D
#1 (Example)	1000	1000	1000	1000	6000	2000	2000	2000	1000	1000	5000	4000
#1	1,825	1,726	1,911	1,723	1,785	1,630	1,683	1,522	1,527	1,787	1,730	1,841
Estimated total gallons												

6. If this is a discharge from the processing facility to a storage or evaporative lagoon, what is the size of the lagoon (give square footage for the bottom of the lagoon and the total volume of the lagoon at full operating depth). *10,000 square feet; 10 million gallons (Example)*

Lagoon #1 Square ft. of bottom 19,019. Total Gallons 1,930,736

Lagoon #2 Square ft. of bottom 33,680, Avg Gallons, 2,339, 644. Total Capacity 4,328,103 Gallons.

7. Check the applicable box. Is this a discharge to a sprayfield ☒ or an infiltration bed ☐? Provide the average gallons per acre per day proposed for each month in the following table.

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept.	Oct	Nov	Dec
Estimated gallons per acre per day	1421.5	1514.7	1040.6	1336.4	1295.3	1179.7	1412.2	1243.8	1535.8	1494.1	1361.9	1205

8. How many hours a day does this facility typically operate? 18 8 hours of clean-up included.

How many days a week does this facility typically operate? 7

How many weeks per year does this facility typically operate? 52

9. List all incidental materials such as oil, paint, grease, solvents, and cleaners that are used or stored on site (list only those with quantities greater than 10 gallons for liquids and 50 pound quantities for solids). For solvents and solvent-based cleaners, include a copy of the material safety data sheet for each material and estimate the quantity used. *Use additional sheets, if necessary and label as attachment C.7.)*

-Solar Ray (Bleach)

-Hurricane C1 (Chlorinated Detergent)

- Blue River (Dish soap, Soft Detergent)

-White Fog (Sanitizer)

- Red Sky (acid)

-Rev Tec (Floor Cleaner)

-Cesco Foaming Avalanche

Materials/Quantity Stored:

- |     |   | Yes                                 | No                                  |
|-----|---|-------------------------------------|-------------------------------------|
| 10. | Some types of facilities are required to have spill or waste control plans. Does this facility have:          |                                     |                                     |
| a.  | A spill prevention, control, and countermeasure plan (40 CFR 112)?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| b.  | An Oil Spill Contingency Plan (chapter 173-182 WAC)?  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| c.  | An emergency response plan (per WAC 173-303-350)?   | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| d.  | A runoff, spillage, or leak control plan (per WAC 173-216-110(f))?  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| e.  | Any spill or pollution prevention plan required by local, state or federal authorities? If yes specify: _____ | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| f.  | A solid waste control plan?   | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |

## SECTION D. WATER CONSUMPTION AND WATER LOSS

1. Potable water source(s):
- ☒ ☐ Public system (Specify name) \_\_\_\_\_
- ☐ ☐ Private well ☐ Surface water (Specify name of water body) \_\_\_\_\_
- a. Water right permit number: \_\_\_\_\_
- b. Legal description of water source:
- \_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_, Section, \_\_\_\_\_ TWN, \_\_\_\_\_ R
2. Potable water use
- a. Indicate total water use:
- |                           |               |
|---------------------------|---------------|
| Gallons per day (average) | <u>63,805</u> |
| Gallons per day (maximum) | <u>69,000</u> |
- b. Is water metered? ☒ YES ☐ NO
3. Supplemental Irrigation water source(s):
- ☐ ☐ Public system or Irrigation District (Specify name) \_\_\_\_\_
- ☐ ☐ Private well ☐ Surface water (Specify name of water body) \_\_\_\_\_
- a. Water right permit number: \_\_\_\_\_
- b. Legal description of water source:
- \_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_  $\frac{1}{4}$ S, \_\_\_\_\_, Section, \_\_\_\_\_ TWN, \_\_\_\_\_ R

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## SECTION E. WASTEWATER INFORMATION

1. How are the water intake and effluent flows measured?

Intake:      Metered

Effluent    25 Gallons per employee as well as water taken by cattle is subtracted from intake meter.

2. Describe the collection method for the samples analyzed below. (*i.e.*, grab, 24-hour composite). Applicants must collect grab samples (not composites) for analysis of pH, temperature, cyanide, total phenols, residual chlorine, oil and grease, fecal coliform (including *E. coli*), and Enterococci (previously known as fecal streptococcus at § 122.26 (d)(2)(iii)(A)(3)), or volatile organics.

3. Has the effluent been analyzed for any other parameters than those identified in question E.4.?    ☐ YES    ☒ NO  
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location of sampling. (*Note: Ecology may require additional testing.*)

4. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for the parameters with an "X" in the left column. If you obtain the application from the internet, contact Ecology's regional office to see if testing for a subset of these parameters is permissible. All analyses (except pH) must be conducted by a laboratory registered or accredited by Ecology (WAC 173-216-125). If this is an application for permit renewal, provide data for the last year for those parameters that are routinely measured. For parameters measured only for this application, place the values under "Maximum." Report the values with units as specified in the parameter name or in the detection level.

The Permittee must use the specified analytical methods, detection limits (DLs) and quantitation levels (QLs) in the following table unless Ecology approves an alternate method or the method used produces measurable results in the sample and EPA has listed it as an EPA approved method in 40 CFR Part 136. If the Permittee uses an alternative method as allowed above, it must report the test method, DL, and QL on the discharge monitoring report or in the required report.

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
<input checked="" type="checkbox"/>	BOD (5 day)	49	294	145	12	SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids					SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
<input checked="" type="checkbox"/>	Total dissolved solids	506	779	640	12	SM 2540 C	
	Conductivity (micromhos/cm)					SM 2510 B	
	Ammonia-N as N					SM 4500-NH <sub>3</sub> C	/0.3 mg/L
<input checked="" type="checkbox"/>	pH	6.8	7.3	7.0	12	SM 4500-H	0.1 standard units
	Fecal coliform (organisms/100 mL)					SM 9221 E or 9222 D	
	Total coliform (organisms/100 mL)					SM 9221 B or 9222 B	
	Dissolved oxygen					SM 4500-O C/G	
<input checked="" type="checkbox"/>	Nitrate + nitrite-N as N	12.06	39.18	16	12	SM 4500-NO <sub>3</sub> E	100 µg/L
	Total kjeldahl N as N					SM 4500-N <sub>org</sub> C/E/FG	300 µg/l
	Ortho-phosphate-P as P					SM 4500-P E/F	10 µg/l
	Total-phosphorous-P as P					SM 4500-P E/P/F	10 µg/l
<input checked="" type="checkbox"/>	Total Oil & grease	1.4	4.1	2.1	12	EPA 1664A	1.4/5 mg/l
	NWTPH - Dx					Ecology NWTPH Dx	250/250 µg/l
	NWTPH - Gx					Ecology NWTPH Gx	250/250 µg/l
	Calcium					EPA 200.7	10 µg/l
	Chloride					SM 4500-Cl C	0.15 µg/l
	Fluoride					SM 4500-F E	.025/0.1 mg/l
	Magnesium					EPA 200.7	10/50 µg/l
	Potassium					EPA 200.7	700/ µg/l
	Sodium					EPA 200.7	29/ µg/l
	Sulfate					SM 4500-SO <sub>4</sub> C/D	/200 µg/l
	Alkalinity as CaCO <sub>3</sub>					SM 2320 B	/5 mg/L as CaCO <sub>3</sub>

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 <sup>th</sup> , 20 <sup>th</sup> edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	Arsenic(total)					EPA 200.8	0.1/0.5 µg/l
	Barium (total)					EPA 200.8	0.5/2 µg/l
	Cadmium (total)					EPA 200.8	.05/.25 µg/l
	Chromium (total)					EPA 200.8	0.2/1 µg/l
	Copper (total)					EPA 200.8	0.4/2 µg/l
	Iron (total)					EPA 200.7	12.5/50 µg/l
	Lead (total)					EPA 200.8	0.1/.5 µg/l
	Manganese (total)					EPA 200.8	0.1/0.5 µg/l
	Mercury (total) pg/L					EPA 1631E	0.2/0.5 pg/l
	Molybdenum(total)					EPA 200.8	0.1/0.5 µg/l
	Nickel(total)					EPA 200.8	0.1/0.5 µg/l
	Selenium (total)					EPA 200.8	1/1 µg/l
	Silver (total)					EPA 200.8	.04/.2 µg/l
	Zinc (total)					EPA 200.8	0.5/2.5 µg/l

Detection level (DL) or detection limit means the minimum concentration of an analyte (substance) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero as determined by the procedure given in 40 CFR part 136, Appendix B.

Quantitation Level (QL) also known as Minimum Level of Quantitation (ML) – The lowest level at which the entire analytical system must give a recognizable signal and acceptable calibration point for the analyte. It is equivalent to the concentration of the lowest calibration standard, assuming that the lab has used all method-specified sample weights, volumes, and cleanup procedures. The QL is calculated by multiplying the MDL by 3.18 and rounding the result to the number nearest to (1, 2, or 5) x 10<sup>n</sup>, where n is an integer. (64 FR 30417).

ALSO GIVEN AS:

The smallest detectable concentration of analyte greater than the Detection Limit (DL) where the accuracy (precision & bias) achieves the objectives of the intended purpose. (Report of the Federal Advisory Committee on Detection and Quantitation Approaches and Uses in Clean Water Act Programs Submitted to the US Environmental Protection Agency December 2007).

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5. Does this facility use any of the following chemicals as raw materials in production, produce them as part of the manufacturing process, or are they present in the wastewater? (*The number following the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.*) ☐ YES ☒ NO

If yes, specify how the chemical is used and the quantity used or produced (*Use additional sheets, if necessary and label as attachment E5.*):

Acrylamide/79-06-1	Nitrofurazone/59-87-0	Heptachlor/76-44-8
Acrylonitrile/107-13-1	N-nitrosodiethanolamine/ 1116-54-7	Heptachlor epoxide/1024-57-3
Aldrin/309-00-2	N-nitrosodiethylamine/55-18-5	Hexachlorobenzene/118-74-1
Aniline/62-53-3	N-nitrosodimethylamine/62-75-9	Hexachlorocyclohexane (alpha)/
Aramite/140-57-8	N-nitrosodiphenylamine/86-30-6	319-84-6
Arsenic/7440-38-2	N-nitroso-di-n-propylamine/ 621-64-7	Hexachlorocyclohexane (tech.)/
Azobenzene/103-33-3	N-nitrosopyrrolidine/930-55-2	608-73-1
Benzene/71-43-2	N-nitroso-di-n-butylamine/ 924-16-3	Hexachlorodibenzo-p-dioxin,
Benzidine/92-87-5	N-nitroso-n-methylethylamine/	mix/19408-74-3
Benzo(a)pyrene/50-32-8	10595-95-6	Hydrazine/hydrazine sulfate/ 302-01-2
Benzotrichloride/98-07-7	PAH/NA	Lindane/58-89-9
Benzyl chloride/100-44-7	PBBs/NA	2 Methylaniline/100-61-8
Bis(chloroethyl)ether/111-44-4	PCBs/1336-36-3	2 Methylaniline hydrochloride/
Bis(chloromethyl)ether/542-88-1	1,2 Dichloropropane/78-87-5	636-21-5
Bis(2-ethylhexyl) phthalate/ 117-81-7	1,3 Dichloropropene/542-75-6	4,4' Methylene bis(N,N-
Bromodichloromethane/75-27-4	Dichlorvos/62-73-7	dimethyl)aniline/101-61-1
Bromoform/75-25-2	Dieldrin/60-57-1	Methylene chloride
Carbazole/86-74-8	3,3' Dimethoxybenzidine/119-90-4	(dichloromethane)/75-09-2
Carbon tetrachloride/56-23-5	3,3 Dimethylbenzidine/119-93-7	Mirex/2385-85-5
Chlordane/57-74-9	1,2 Dimethylhydrazine/540-73-8	O-phenylenediamine/106-50-3
Chlorodibromomethane/124-48-1	2,4 Dinitrotoluene/121-14-2	Propylene oxide/75-56-9
Chloroform/67-66-3	2,6 Dinitrotoluene/606-20-2	2,3,7,8-Tetrachlorodibenzo-p-dioxin/
Chlorthalonil/1897-45-6	1,4 Dioxane/123-91-1	1746-01-6
2,4-D/94-75-7	1,2 Diphenylhydrazine/122-66-7	Tetrachloroethylene/127-18-4
DDT/50-29-3	Endrin/72-20-8	2,4 Toluenediamine/95-80-7
Diallate/2303-16-4	Epichlorohydrin/106-89-8	o-Toluidine/95-53-4
1,2 Dibromoethane/106-93-4	Ethyl acrylate/140-88-5	Toxaphene/8001-35-2
1,4 Dichlorobenzene/106-46-7	Ethylene dibromide/106-93-4	Trichloroethylene/79-01-6
3,3' Dichlorobenzidine/91-94-1	Ethylene thiourea/96-45-7	2,4,6-Trichlorophenol/88-06-2
1,1 Dichloroethane/75-34-3	Folpet/133-07-3	Trimethyl phosphate/512-56-1
1,2 Dichloroethane/107-06-2	Furmecyclohex/60568-05-0	Vinyl chloride/75-01-4

6. Are any other pesticides, herbicides, or fungicides used at this facility? ☐ YES ☒ NO  
If yes, specify the material and quantity used.

7. Are there other pollutants that you know of or believe to be present? ☒ YES ☐ NO

If yes, specify the pollutants and their concentration if known  
(attach laboratory analyses if available).

☐ DON'T KNOW

Glyphosate (Round up)

2016- 2.5 Gallons per site

2017- 1.5 Gallons per site

2018- 1 Gallon per site

## SECTION F. GROUND WATER INFORMATION

Provide available data measurements or range of measurements from monitoring wells or supply wells in the area of discharge. Provide the analytical method and detection limit, if known. Provide the location of each well on the map required in G.3 below. Attach well logs when available. Copy this page as necessary for each well. Provide the latitude and longitude in decimal format.

Ecology Well Tag ID # \_\_\_\_\_

Well ID # \_\_\_\_\_ (example MW-1)

(example AAB123)

Latitude: \_\_\_\_\_

Longitude: \_\_\_\_\_

Well Elevation (to the nearest 0.01 feet) \_\_\_\_\_ Check the appropriate box; the elevation measurement is relative to: the NAVD88 standard ☐ mean sea level ☐

Parameter	Units	Range of Measurements	Number of Analyses	Analytical Method	Detection Limit
BOD (5 day)	mg/L				
COD	mg/L				
Total organic carbon	mg/L				
Total dissolved solids	mg/L				
Dissolved Fixed Solids	mg/L				
pH	Standard units				
Conductivity	(micromhos/cm)				
Alkalinity	mg/L as CaCO <sub>3</sub>				
Total hardness	mg/L				
Fecal coliform	organisms/100mL				
Total coliform	organisms/100mL				
Dissolved oxygen	mg/L				
Ammonia-N	mg/L				
Nitrate + nitrite-N, nitrate as N	mg/L				
Total kjeldahl N as N	mg/L				
Ortho-phosphate-P as P	mg/L				
Total-phosphate-P as P	mg/L				
Total Oil and Grease	mg/L				
Total petroleum hydrocarbon	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Calcium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chloride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Fluoride	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Magnesium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Potassium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sodium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Sulfate	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Barium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Cadmium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Chromium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Copper	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Iron	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Lead	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Manganese	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				

Parameter	Units	Range of Measurements	Number of Analyses	Analytical Method	Detection Limit
Mercury	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Selenium	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Silver	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Zinc	<input type="checkbox"/> mg/L <input type="checkbox"/> µg/l				
Depth to water level (to the nearest .01 feet)					



## SECTION G. SITE ASSESSMENT

**The local library and local city or county planning offices may be helpful in providing the information required in this section. You may consult the Department of Ecology Water Resources Program to help identify wells within one mile of your site.**

1. Land Application Sites: Provide the information below for each land application site. Provide the latitude/longitude (approximate center of the site; NAD83/WGS84 reference datum.) Attach a copy of the contract(s) authorizing use of any private land(s) used for each treatment site. Add table rows as necessary.

Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner
Legal Description (section/township/range)			
Latitude	Longitude	Acreage	Owner

2. If this is a new discharge, list all environmental control permits or approvals needed for this project; for example, SEPA review, engineering reports, hydrogeologic reports, , , or air emissions permits.


3. Attach an original United States Geological Survey (USGS) 7.5 minute topographic map and aerial photograph(s) from an internet mapping site that shows the processing facility and sprayfield site(s). **USGS topographical maps are available from the Department of Natural Resources (360 902-1234), Metsker Maps (206 588-5222), some local bookstores, and internet sites.** Show the following on this map:
  - a. Location and name of internal and adjacent streets.
  - b. Surface water drainage systems within ¼ mile of the site.
  - c. All wells within 1 mile of the site.
  - d. Wastewater discharge points.
  - e. Land uses and zoning adjacent to the wastewater application site.
  - f. Groundwater gradient.
4. Describe the soils on the site using information from local soil survey reports. **Soils information is available from your local County Conservation District or from information contained in the sites hydrogeologic report.** *(Submit on separate sheet and label as attachment G.4.)*
5. Describe the local geology and hydrogeology within one mile of the site. Include any groundwater quality data. **The local library or local Soil Conservation Service may have this information.** *(Submit on separate sheet and label as attachment G.5.)*
6. List the names and addresses of contractors or consultants who provided information and cite sources of information by title and author.

## SECTION H. STORMWATER

1. Do you have coverage under the Washington State Industrial Stormwater NPDES General permit? ☐ YES ☒ NO  
If yes, please list the permit number here. \_\_\_\_\_

If no, have you applied for coverage under the Washington State Industrial Stormwater NPDES general permit? ☐ YES ☒ NO

**Note:** If you answered "no" to both questions above, complete the following questions 2 through 8.

2. Describe the size of the stormwater collection area.
- |                                   |                      |
|-----------------------------------|----------------------|
| a. Unpaved area                   | <u>76,225</u> sq.ft. |
| b. Paved area                     | <u>44,420</u> sq.ft. |
| c. Other collection areas (roofs) | <u>15,000</u> sq.ft. |
3. Does your facility's stormwater discharge to: *(Check all that apply)*
- ☐ Storm sewer system; name of storm sewer system *(operator)*: \_\_\_\_\_
- ☐ Sanitary sewer
- ☐ Directly to surface waters of Washington State *(e.g., river, lake, creek, estuary, ocean)*.  
Specify waterbody name \_\_\_\_\_
- ☒ Indirectly to surface waters of Washington State *(i.e., flows over adjacent properties first)*.
- ☐ Directly to ground waters of Washington State via:
- ☐ Dry well
- ☐ Drainfield
- ☐ Other \_\_\_\_\_
4. Areas with industrial activities at facility: *(check all that apply)*
- ☒ Manufacturing building
- ☒ Material handling
- ☒ Material storage
- ☐ Hazardous waste treatment, storage, or disposal *(refers to RCRA, Subtitle C facilities only)*
- ☐ Waste treatment, storage, or disposal
- ☒ Application or disposal of wastewaters
- ☐ Storage and maintenance of material handling equipment
- ☐ Vehicle maintenance
- ☐ Areas where significant materials remain
- ☐ Access roads and rail lines for shipping and receiving
- ☐ Other \_\_\_\_\_

5. Material handling/management practices

a. Types of materials handled and/or stored outdoors: *(check all that apply)*

- |   |  |
|---|--|
| <input type="checkbox"/> <input type="checkbox"/> Solvents                            | <input type="checkbox"/> <input type="checkbox"/> Hazardous wastes                   |
| <input type="checkbox"/> <input type="checkbox"/> Scrap metal                         | <input type="checkbox"/> <input type="checkbox"/> Acids or alkalies                  |
| <input type="checkbox"/> <input type="checkbox"/> Petroleum or petrochemical products | <input type="checkbox"/> <input type="checkbox"/> Paints/coatings                    |
| <input type="checkbox"/> <input type="checkbox"/> Plating products                    | <input type="checkbox"/> <input type="checkbox"/> Woodtreating products              |
| <input type="checkbox"/> <input type="checkbox"/> Pesticides                          | <input type="checkbox"/> <input type="checkbox"/> Other <i>(please list)</i> : _____ |

b. Identify existing management practices employed to reduce pollutants in industrial storm water discharges: *(check all that apply)*

- |   |  |
|---|--|
| <input type="checkbox"/> <input type="checkbox"/> Oil/water separator         | <input type="checkbox"/> <input type="checkbox"/> Detention facilities               |
| <input type="checkbox"/> <input type="checkbox"/> Containment                 | <input type="checkbox"/> <input type="checkbox"/> Infiltration basins                |
| <input type="checkbox"/> <input type="checkbox"/> Spill prevention            | <input type="checkbox"/> <input type="checkbox"/> Operational BMPs                   |
| <input type="checkbox"/> <input type="checkbox"/> Surface leachate collection | <input type="checkbox"/> <input type="checkbox"/> Vegetation management              |
| <input type="checkbox"/> <input type="checkbox"/> Overhead coverage           | <input type="checkbox"/> <input type="checkbox"/> Other <i>(please list)</i> : _____ |

6. Attach a map showing stormwater drainage/collection areas, disposal areas and discharge points. This may be a hand drawn map if no other site map is available. Label this as attachment H.8.

Please See Attachment H8 (2 attachments)

---

## SECTION I. OTHER INFORMATION

1. Describe liquid or solid wastes generated that are not disposed of in the waste stream(s) and describe the method of disposal. For each type of waste, provide type of waste, name, address, and phone number of hauler.

Blood- Qualco Energy: 14751 N. Kelsey st. Ste 105#208. Monroe, Wa. 98272

Paunch Manure: Lenz Enterprises (360)629-2933. 5210 WA 532. Stanwood, Wa 98292

Offal: Baker Commodities Seattle (206)242-2828

Hide- Friese Hide and Tallow: Bellingham, Wa. (360)384-0996

2. Describe any storage areas used for raw materials, products, and wastes.

---

---

### Summary of attachments that may be required for this application:

(Please check those attachments that are included)

- ☒ C.2. Production schematic flow diagram and water balance
- ☒ C.4. Wastewater treatment improvements
- ☒ C.7. Additional incidental materials
- ☐ E.4. Additional results of effluent testing
- ☐ G.1. Copies of land use contracts
- ☐ G.3. USGS topographical map
- ☐ G.4. Soils description
- ☐ G.5. Local geology and hydrology
- ☒ H.8. Stormwater drainage map

*If you need this document in a format for the visually impaired, call the Water Quality Program at 360-407-6600. Persons with hearing loss can call 711 for Washington Relay Service. Persons with a speech disability can call 877-833-6341.*



#### Section C #4

This past August we upgraded our electrical for the lagoons and were able to add some more aeration. We added two 5hp air diffusers and one 3hp diffuser. This will help with additional aeration throughout the lower lagoon.

#### Scheduled Improvements:

During the winter and spring we are in the process of building a new facility to house a new DAF system. The building should be complete by this coming spring.

The new waste water treatment system will begin with the installation of a new automated above grade internally fed, rotary screen for solids removal. Those solids will be conveyed via auger to a trailer to be sent off site for rendering. The remaining water will be pumped to a 10,000 gallon above ground equalization tank. The tank is designed to gravity feed to the new DAF system. Both a coagulant and polymer chemical treatment regime will be used for maximum solids removal. Those solids will be sent out for either rendering or compost. The equipment is scheduled to be delivered in the 1<sup>st</sup> quarter of 2019. Installation can begin at that time. As mentioned above, the building to house the DAF will not be complete until spring. However the DAF can be put in place prior to building completion.

#### Section C #4

In the summer of 2018 we added additional curbing behind the plan to prohibit the possibility of any spillage of whatever to Douglass creek. The curbing extends the entire distances of the back of the plant (south boundary).

Other improvements were made in 2017 which include a 60" pump station (approximately 1600 gallons), behind our barn where manure is loaded out. It has a lift station that pumps to our storm waste-retention tank. Also new in 2017 is the storm water tank. It has a 72" hatch and contains approximately 2000 gallons. This pump station collects water from all roofs on the south side of 288<sup>th</sup> St. the front of the plant parking areas and paved area just west and south of the plant. It pumps the storm water to the lagoon for processing.



[illegible]

C-4

Area# 1, 3, 4, 8, and 10- Is sprayed using a 150SR Nelson Big Gun or a 100SR Nelson Gun witch is moved throughout the entire field hooking up to multiple outlets with different lengths of irrigation hose to cover entire Area.

$\frac{3}{4}$  of area# 7, and areas 6, 5a, 5b, and 5d- is sprayed using a 100SR Nelson Gun witch moved throughout the entire field hooking up to multiple outlets with different lengths of irrigation hose to cover entire

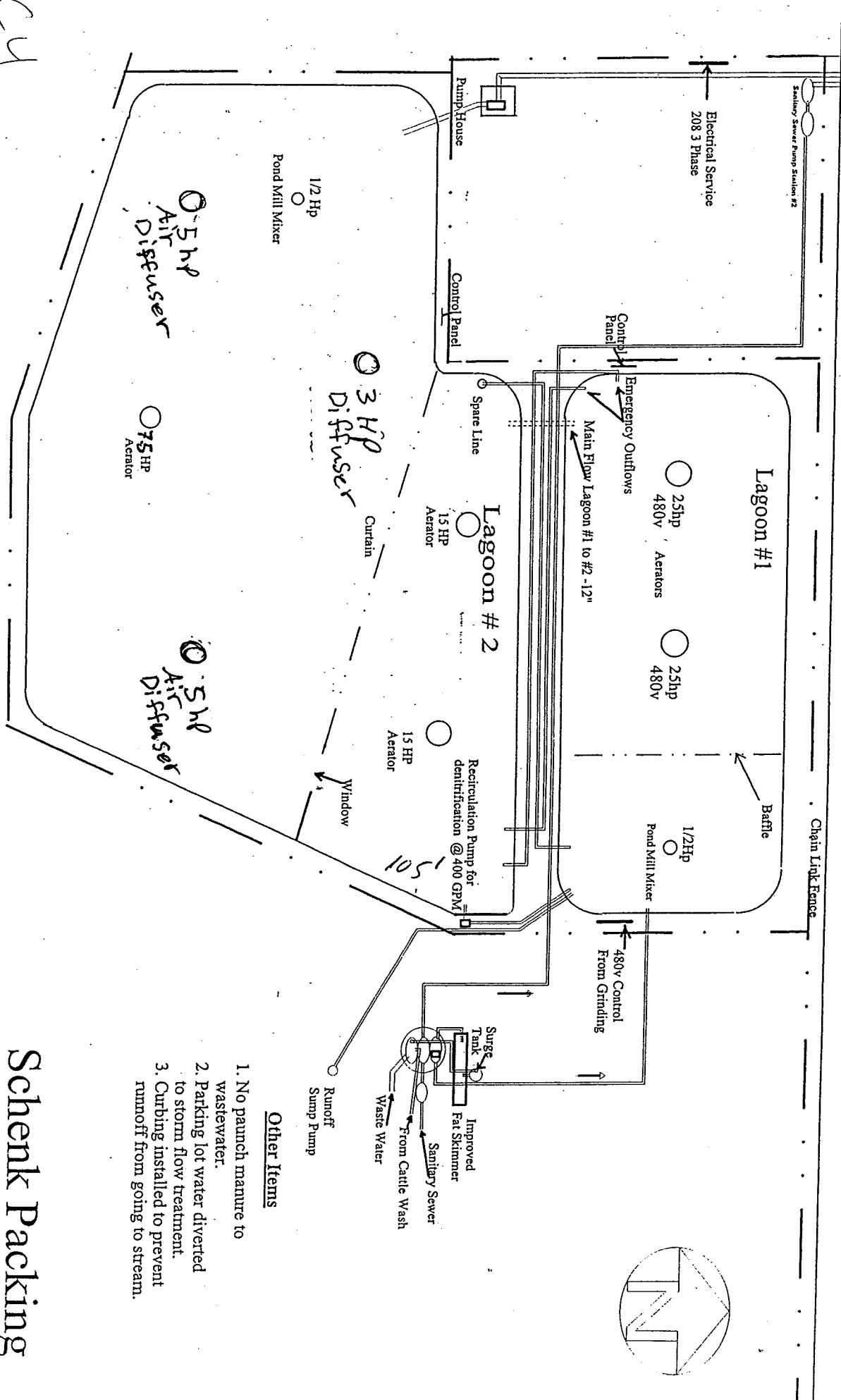
$\frac{1}{4}$  of area 7 remains the same spraying system with 4 outlets of sprinkler system with 3 outlets that have 13 sprinklers and one line with 5 Sprinklers.

Areas # 2 and 9 are sprayed using sprinklers spread throughout the entire field.

Areas # 7b and 5c is sprayed using V jet sprinkler system that can be moved around throughout area.

288th St NW

Approx. Scale 1" = 60'



CH

Improvements to Wastewater Treatment  
to be completed by June 1998

- Other Items
1. No paunch manure to wastewater.
  2. Parking lot water diverted to storm flow treatment.
  3. Curbing installed to prevent runoff from going to stream.

Schenk Packing  
WTP  
Modifications  
6 - 98



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## SAFETY DATA SHEET

Phone 360.733.7478      2227 Midway Lane  
Toll Free 800.241.0110      Bellingham, WA 98226  
Fax 360.733.7479

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### CESCO SOLAR RAY

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CESCO SOLAR RAY  
PRODUCT USE : Water Treatment / Sanitation  
PRODUCT DESCRIPTION : Light greenish-yellow, non-viscous liquid with chlorine odor.

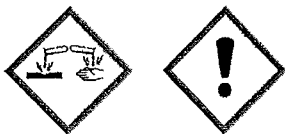
WHMIS CLASSIFICATION: E - Corrosive Material D2B - Toxic Material

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger



HAZARD STATEMENTS: Causes severe skin burns and eye damage.  
Toxic to aquatic life.  
Harmful if swallowed.  
Corrosive.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Causes severe burns to eyes. Eye damage may be permanent.

##### SKIN:

Causes severe burns to skin and all body tissues. Contact with skin can cause burns and/or irritation. Symptoms of contact are redness, swelling and scab formation of contacted area. If prolonged exposure occurs it can cause damage to the secondary tissue resulting in the inability of regeneration to the affected area.

##### INGESTION:

Harmful if swallowed. Ingestion may cause burns to the mouth and esophagus. Irritation and/or burns to the entire gastrointestinal tract. Symptoms are characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.

##### INHALATION:

Sodium hypochlorite when inhaled is irritating to the nose, mouth, throat and lungs. Burns to the respiratory tract may occur with production of lung edema which could result in shortness of breath, wheezing, choking, chest pain and impairment of lung function. High concentrations can result in permanent lung damage.



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Repeated exposure can cause impairment of lung function and permanent lung damage.

**MEDICAL CONDITIONS AGGRAVATED:**

None known or reported.

**CHRONIC (CANCER) INFORMATION:**

There is no data available on the chronic effects of ingestion of this material.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

No Information.

**REPRODUCTION INFORMATION:**

No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
SODIUM HYPOCHLORITE SOLUTION, 12.5%	7681-52-9	90 -100%
SODIUM HYPOCHLORITE 12.5%		HAZARD-OXIDIZER
[CHLORINE CAS NO. 7782-50-5] [Inhal]	ACGIH TLV-0.5PPM	ACGIH STEL-1PPM
.....	OSHA PEL-0.5PPM	OSHA STEL-1PPM
SODIUM HYDROXIDE CAS NO. 1310-73-2	ACGIH 2MG/M3	OSHA PEL-2MG/M3
.....	Ceiling	Ceiling

**4. FIRST AID MEASURES**

**EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eyewash is essential if permanent injury is to be avoided. In case of chemical burns, apply sterile bandages loosely to eyes without medication. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately. Prolong washing in serious cases until doctor arrives. GET MEDICAL CARE FOR EVIDENCE OF BURNING. If evidence of chemical burn exists, cover with sterile, dry dressing. Bandage securely, but not too tightly.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER. DO NOT INDUCE VOMITING. Dilute with large quantities of water followed by 2 ounces of milk of magnesia. Treat symptomatically and supportively. If vomiting occurs spontaneously, keep airway clear.

GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.



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**INHALATION:**

Remove from exposure to mist. If breathing has stopped, provide artificial respiration. Keep the person warm and at rest. OBTAIN IMMEDIATE MEDICAL ATTENTION.

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:**

FLASH POINT: None

Method: Not Applicable

FLAMMABLE LIMITS: Lower: N/A

Upper: N/A

**HAZARDOUS COMBUSTION PRODUCTS:**

Sodium hypochlorite under the proper conditions is stable. However, it may become unstable when subjected to high heat, sunlight or ultra-violet light. Decomposition will result from contact with iron and copper. Solution in water is a storage hazard due to oxygen evolution. Thermal decomposition may release gases such as chlorine, sodium oxide, oxygen, oxides of chlorine, sodium chlorate and hydrogen.

**EXTINGUISHING MEDIA:**

Use media appropriate for surrounding material. Use water spray to cool containers exposed to fire from as far a distance as possible. DO NOT get water inside containers. Generates heat upon addition of water, with possible spattering.

**FIREFIGHTING INSTRUCTIONS:**

SCBA recommended with a full face piece operated in pressure-demand mode or other positive pressure mode. Wear full protective clothing. Run-off may cause pollution. Dike to contain run-off for proper handling as stated in Section VII. Hazardous chlorine gas can be formed in case of a fire. Use personal protective equipment - see Section VIII "Control Measures" of this SDS.

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**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Negligible fire hazard when exposed to heat or flame.

**SENSITIVE TO STATIC DISCHARGE:**

No Information

**SENSITIVE TO IMPACT**

No Information

**6. ACCIDENTAL RELEASE MEASURES**

Do not touch spilled material. Stop leak if you can without risk. For SMALL SPILLS pick up spill with vacuum equipment (alkali resistant) for disposal, or flush to holding area with water. Neutralize residues with dilute acid and rinse with water.

For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away from area. Isolate hazard area and deny entry.

Any person responding to a spill or leak should use a self-contained breathing apparatus (SCBA). Additional protective clothing must be worn to prevent direct contact with this substance. This includes (but is not limited to) boots, gloves (neoprene, butyl rubber, vitron and saranex), goggles and impervious clothing.

Hazardous concentrations may be found in local spill area and immediately downwind. Vapors may be suppressed by the use of a water fog and all water run-off should be captured for treatment and disposal.

**7. HANDLING AND STORAGE**

Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Drains must have retention basins for pH adjustment and neutralization of spilled materials and flushings prior to discharge. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water. DO NOT store in ALUMINUM containers as flammable hydrogen gas can be generated. Do not use aluminum fittings or transfer lines. Avoid contact with acids. DO NOT permit workers to handle caustic materials without proper training and proper equipment. Avoid contact with incompatible chemicals listed in Section V. Do not mix or contaminate with materials as outline in Section V - Reactivity. Do not store in metal containers. Avoid direct sunlight. Do not store at temperatures above 60-70 degrees F (15-21 degrees C).

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design exhaust systems.

**RESPIRATORY PROTECTION:**

None needed for normal operating conditions. Have available and wear as appropriate for exposure limits: NIOSH/MSHA approved respirator. Supplied-air respirator with a full face-piece, helmet or hood: self-contained breathing apparatus with a full face-piece. Due to low volatility and toxicity, a respirator is not normally needed. However, if vapors, mists, or aerosols are generated, wear a NIOSH/MISHA approved respirator.

**SKIN PROTECTION:**

Apron or protective clothing, and rubber boots (tops covered by apron or clothing to prevent entrance of material).

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**CHRONIC/CARCINOGENICITY:**

N/AV

**TERATOLOGY:**

N/AV

**REPRODUCTION:**

N/AV

**MUTAGENICITY:**

N/AV

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:**

**Ecotoxicity:**

Acute Fish Toxicity: LC50/96-hr Bluegill sunfish: 2.90 mg/L, LC50/96-hr Pimephales promelas (fathead minnow): 1.40 mg/L, LC50/0.5-hr Oncorhynchus mykiss (rainbow trout): 0.90 mg/L

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:**

Spilled material should be solidified with sand, soil or other absorbent material so that no free liquid remains before disposal. Incineration and/or disposal in chemical land-fill. Disposal must comply with all federal, state and local disposal and discharge laws. Any rinsate may be considered a RCRA hazardous waste and must be disposed of with care.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

As currently defined in the federal Resource Conservation Act (RCRA), sodium hypochlorite, when discarded, is a hazardous waste as defined under 40 CFR 261.22 as exhibiting the characteristics of corrosivity. Its disposal is, therefore, regulated by federal RCRA regulations.

**CLEAN WATER ACT REQUIREMENTS:**

No information.

**14. TRANSPORT INFORMATION**

**DOT CLASSIFICATION (USA):**

RQ, UN 1791, Hypochlorite Solutions, Class 8, PGIII, (Sodium Hypochlorite)

**TDG REGULATIONS (CANADA):**

UN 1791, Hypochlorite Solutions, Class 8, PGIII, (Sodium Hypochlorite)

**15. REGULATORY INFORMATION:**

**U.S. FEDERAL REGULATIONS:**

**SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT):**





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CESCO SOLAR RAY

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### **302/304 EXTREMELY HAZARDOUS SUBSTANCES:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Extremely Hazardous Substances contained in this product are:

\*\*\*NONE\*\*\*. Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance.

Sodium hypochlorite is considered a CERCLA Hazardous substance with a reportable quantity (RQ) of 800 lbs of CESCO SOLAR RAY.

### **311/312 HAZARD CATEGORIES:**

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Immediate (Acute) Health Hazard. A Delayed (Chronic) Health Hazard. A Reactive Hazard.

### **313 REPORTABLE INGREDIENTS:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDS's that are copied or distributed for this material. Refer to Section II, HAZARDOUS INGREDIENTS/SARA III INFORMATION, the components that are subject to reporting are designated by an asterix (\*).

### **TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:**

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

### **RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

N/AV

### **INTERNATIONAL REGULATIONS:**

#### **CANADIAN WHMIS:**

N/AV

### **STATE REGULATIONS:**

## **16. OTHER INFORMATION**

### **NFPA RATINGS:**

HEALTH (H): 2      FIRE (F): 0      REACTIVITY (R): 1

### **HMIS CODES:**

HEALTH (H): 2      FIRE (F): 0      PHYSICAL HAZARD (P): 1

SDS REVISION DATE: MARCH 18, 2015

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CESCO SOLAR RAY

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**NAME OF PREPARER: Environmental, Health & Safety Department.**

**CONTACT PHONE NUMBER: (360) 733-7478**

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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Fax 360.733.7479    Bellingham WA 98226

### ***CESCO SOLUTIONS** for the Food & Beverage Industry*

## **CESCO SOLAR RAY**

**DESCRIPTION:** CESCO SOLAR RAY is a chlorine sanitizer and disinfectant.

**APPLICATION:** CESCO SOLAR RAY is approved for the following uses: sanitizing, disinfecting, fogging and agricultural product treatment. It can also be used as a chlorine boosting agent with alkaline wash solutions. All application methods and uses concentrations are not listed below. Please review label for use additional instructions.

		Recommended Concentration Level	
		oz per 1 gallon / mL per 1 L	PPM
Application Method	Non Porous Food Contact Surface Sanitizer	2 oz per 10 gallons / 15.6 mL per 10 Liters	200
	Non Porous Non-Food Contact Surface Sanitizer	2 oz per 10 gallons / 15.6 mL per 10 Liters	200
	Non Porous Food Contact Surface Disinfectant	6 oz per 10 gallons / 46.87 mL per 10 Liters	600
	Non Porous Food Contact Surface Fogging	6 oz per 10 gallons / 46.87 mL per 10 Liters	600
	Fruit & Vegetable Wash	5 oz per 200 gallons / 39 mL per 200 Liters	25
	Egg Shell Treatment	2 oz per 10 gallons / 15.6 mL per 10 Liters	200

### **PRODUCT DATA:**

<b>Appearance</b>	Pale Yellow Liquid
<b>Odor</b>	Chlorine Odor
<b>pH (of 5% dispersion)</b>	~11
<b>Viscosity</b>	Non Viscous
<b>Specific Gravity @ 20 °C</b>	1.19 – 1.21
<b>Sudsing</b>	Low Foaming
<b>Rinsibility</b>	Excellent

**STORAGE:** Store in well sealed, vented, corrosion resistant containers that are protected from physical damage and kept above freezing and no hotter than 100°F. DO NOT store this product where it could come in contact or meet in a common drain with an acid product. Avoid direct sunlight to prevent loss of product activity. Store all products on properly sized spill containment units. CESCO SOLAR RAY is currently available in the following sizes:

5 Gallon Pail  
55 Gallon Drum  
275 Gallon Tote

C-7



*your partner in food safety*

# SDS

## Safety Data Sheet

---

### 1) Product Identification

**Product Name:** Beefside

**Product Code:** I02659

**Recommended Use:** Meat antimicrobial for direct application as a process aid.

**Producer:** Birko Corporation  
9152 Yosemite Street  
Henderson, CO 80640-8027

**Contact Information:** (303) 289-1090 or 1-800-525-0476

**Emergency Number:** CHEMTREC 1-800-424-9300

---

### 2) Hazard(s) Identification

Health	Environmental	Physical
Acute Toxicity Cat. 5 Skin Corrosion Cat. 2 Eye Effects Cat. 2	Aquatic Toxicity Acute Cat. 4	

**Labeling:****Symbol:****Signal Word(s):** Warning

**Hazard Statement(s):** May causes eye damage. Harmful or fatal if swallowed. May causes burns. Do not get into eyes, on skin, or on clothing. Corrosive to certain types of metals over time.

**Precautionary Statement(s):** Use rubber gloves, protective splash-proof goggles, and protective clothing. Remove contaminated clothing and wash before re-use. Do not contaminate food, feed, or water. Keep container closed when not in use.

---

**3) Composition/ Information on Ingredients**

Name(s)	Synonym(s)	CAS Number	Weight %
Lactic Acid		79-33-4	45-60%
Citric Acid		77-92-9	20-35%

---

**4) First-Aid Measures**

Inhalation	Skin Contact	Eye Contact	Ingestion
If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.	Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Seek immediate medical attention. Wash clothing before re-use and discard contaminated shoes.	If material gets into the eyes, immediately flush eyes gently with water for at least 15 minutes while holding eyelids apart. If symptoms develop as a result of vapor exposure, immediately move individual away from exposure and into fresh air before flushing as recommended above. Seek immediate medical attention.	Seek immediate medical attention. Do not induce vomiting. Vomiting will cause further damage to the mouth and throat. If individual is conscious and alert, immediately rinse mouth with water and give milk or water to drink. If possible, do not leave individual unattended.

---

---



## 8) Exposure Controls and Personal Protection

**Appropriate Engineering Controls:** Ventilation: Provide local exhaust ventilation where mist may be generated. Ensure compliance with applicable exposure limits.

### Exposure Limits:

Name (CAS-No.)	PEL	TWA	STEL
NA	NA	NA	NA

### Personal Protective Equipment

Eye/Face	Gloves
	

**Eye/Face:** Safety glasses. Wear chemical safety goggles with face shield when appropriate.

**Skin:** Wear appropriate clothing.

**Gloves:** Wear appropriate chemical resistant gloves.

**Protective Material Types:** Neoprene, nitrile rubber, polyvinyl chloride, polyethylene.

---

## 9) Physical and Chemical Properties

**Physical Form:** Liquid

**Appearance:** None-Very Pale

**Odor:** Mild-sweet/syrupy

**pH:** 2.5

**Freezing Point:** < 30°F

**Boiling Point:** > 220° F

**Flammability:** Not flammable

**Vapor Pressure:** < 1

**Vapor Density:** > 1

**Specific Gravity:** 1.29

**Solubility:** 100%

---

## 10) Stability and Reactivity

**Chemical Stability:** Stable at normal temperatures and pressure.

**Possibility of Hazardous Reactions:** This product does not polymerize under normal storage and use conditions.

**Conditions to Avoid:** Mixing with caustics and other strong bases. Mixing with Chlorine.

**Materials to Avoid:** Alkali metals, strong alkalis, carbides, hydrogen sulfide, turpentine, organic acids, acid reacts with most metals to release hydrogen gas which can form explosive mixtures with air.

**Hazardous Decomposition Products:** Carbon monoxide and Carbon dioxide gases liberated during combustion.

---

## 11) Toxicological Information

### Acute Toxicity:

Test	Results	Basis
Oral LD50 (rat)	3730mg/kg	Product tests
Dermal LD50 (rabbit)	2000mg/kg	Product tests

**Summary Comments:** Mild acid burns and irritation may occur. If product comes into contact with skin or eyes, wash thoroughly with cool water.

### Sub-chronic/Chronic Toxicity:

Test	Results	Comments
N/A	N/A	N/A

---

## 12) Ecological Information

### Toxicity:

Test	Results
Daphnia EC50	240mg/L 48 Hours
Fish LD50	320 mg/L

**Persistence and Degradability:** Increased acidity in water will cause harm and death to aquatic organisms.

**Bioaccumulative Potential:** This material is believed not to bioaccumulate.

**Mobility in Soil:** Product is believed to be biodegradable.

**Other Adverse Effects:** Not available

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### **13) Disposal Considerations**

**Disposal Method:** Re-use or reprocess if possible. Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262.

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### **14) Transport Information**

**UN Number:** Not D.O.T. Regulated.

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### **15) Regulatory Information**

#### **US Regulations:**

**CERCLA Sections 102a/103 Hazardous substances (40 CFR 302.4):** N/A

**SARA Title III, SARA Sections 311/312, Hazardous Categories (40 CFR 370.21):**

Acute: Yes

Chronic: No

Fire: No

Reactive: No

Sudden Release: No

**FDA:** The ingredients of this product have Generally Recognized as Safe (GRAS) status under specific FDA regulations. Additional information is available from the Code of Federal Regulations (CFR) which is accessible on the FDA's website.

#### **State Regulations:**

**California Proposition 65:** This product is not listed.

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## SAFETY DATA SHEET

Phone 360.733.7478    www.cescosolutions.com  
Toll Free 800.241.9110    2227 Midway Lane  
Fax 360.733.7479    Bellingham WA 98226

### CESCO BLUE RIVER

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CESCO BLUE RIVER  
PRODUCT USE : Multipurpose Degreaser  
PRODUCT DESCRIPTION : Clear blue, non-viscous liquid with mild organic odor.

WHMIS CLASSIFICATION: Not Classified

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Warning



HAZARD STATEMENT: Causes skin and eye irritation.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Moderate to severe eye irritant.

##### SKIN:

Mild to moderate skin irritant. May cause some dryness of skin with repeated contact.

##### INGESTION:

Ingestion may cause irritation, nausea and diarrhea.

##### INHALATION:

None Known

##### MEDICAL CONDITIONS AGGRAVATED:

N/AV

##### CHRONIC (CANCER) INFORMATION:

There is no data available on the chronic effects of ingestion of this material.

##### TERATOLOGY (BIRTH DEFECT) INFORMATION:

No Information.

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CESCO BLUE RIVER

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**REPRODUCTION INFORMATION:**  
No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
TRIETHANOLAMINE, 99%	000102-71-6	0 - 10%
..... 99%	ACGIH TLV-5MG/M3 TWA	

**4. FIRST AID MEASURES**

**EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eye wash is essential. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.

**INHALATION:**

Remove from exposure to mist. Fresh air should relieve symptoms of irritation. If BREATHING has STOPPED, provide artificial respiration, keep the person warm and at rest and OBTAIN IMMEDIATE MEDICAL ATTENTION.

**NOTE TO PHYSICIAN:**

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:**

FLASH POINT: None	Method: N/AV
FLAMMABLE LIMITS: Lower: N/A	Upper: N/A

**HAZARD COMMUNICATION:**

OSHA Standard 29CFR 1910.1200 requires that all information be provided to employees regarding the hazards of chemicals by means of a hazard communication program including labeling, material safety data sheets, training

CESCO SOLUTIONS, INC.  
CESCO BLUE RIVER

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and access to written records. We request that you, and it is your legal duty to, make all information in this SDS available to your employees.

**HAZARDOUS COMBUSTION PRODUCTS:**

Nitrous oxides and ammoniacal vapors. Thermal decomposition products expected to produce carbon dioxides.

**EXTINGUISHING MEDIA:**

Dry chemical, carbon dioxide, water spray or foam.

**FIREFIGHTING INSTRUCTIONS:**

Move containers from fire if possible, cool containers exposed to flames with water from side until well after fire is out.

Do not use water directly on material. If large amounts of combustible material are involved, use water spray or fog in flooding amounts. Solid streams may be ineffective. Use water spray to absorb corrosive vapors. Cool containers with flooding amounts of water from as far a distance as possible, keep upwind.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Product is non-flammable as supplied. Do not depend upon ambient air for breathing air supply during fires.

**SENSITIVE TO STATIC DISCHARGE:**

No Information

**SENSITIVE TO IMPACT**

None known.

**6. ACCIDENTAL RELEASE MEASURES**

Do not touch spilled material. Stop leak if you can without risk. For SMALL SPILLS cover with sand or other absorbent material. With a clean shovel place all spilled material, contaminated soil and other contaminated material into a clean, dry container and cover for later disposal. Move containers from spill area. For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away. Isolate hazard area and deny entry.

**7. HANDLING AND STORAGE**

Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Drains must have retention basins for pH adjustment and neutralization of spilled materials and flushings prior to discharge. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination.

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CESCO BLUE RIVER

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**RESPIRATORY PROTECTION:**

None needed for normal operating conditions.

**SKIN PROTECTION:**

Employee must wear appropriate impervious protective clothing and equipment such as apron, rain slicker gear, rubber gloves, and rubber boots to prevent repeated contact with this substance.

**EYE PROTECTION:**

Employee must wear splash proof safety glasses or safety goggles to prevent eye contact with this substance. DO NOT WEAR CONTACT LENSES.

**PROTECTIVE GLOVES:**

Employee must wear chemical resistant protective gloves to prevent contact with this substance.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT: 617°F  
APPEARANCE & ODOR: N/AV  
VAPOR DENSITY: N/AV  
VAPOR PRESSURE: N/AV  
SPECIFIC GRAVITY: 1.02  
pH: 10.5 - 11.0 (5% sol)  
SOLUBILITY IN WATER: Complete.  
VOC: N/AV

**10. STABILITY AND REACTIVITY****CHEMICAL STABILITY (CONDITIONS TO AVOID):**

Under extreme temperatures, evaporation of water in formulation will occur, and may burn but does not ignite readily.

**INCOMPATIBILITY:**

Strong oxidizers, acids and alkalies.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition products expected to produce carbon dioxides. Nitrous oxides and ammoniacal vapors.

**HAZARDOUS POLYMERIZATION:**

Has not been reported to occur.

**11. TOXICOLOGICAL INFORMATION****CHRONIC/CARCINOGENICITY:**

N/AV

**TERATOLOGY:**

N/AV

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CESCO BLUE RIVER

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**REPRODUCTION:**

N/AV

**MUTAGENICITY:**

N/AV

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:**

Current data not available.

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:**

A non-hazardous liquid waste, it should be solidified with sand, soil or other absorbent material so that no free liquid remains before disposal. Incineration and/or disposal in chemical land-fill. Disposal must comply with all federal, state and local disposal and discharge laws.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

Not a hazardous waste.

**CLEAN WATER ACT REQUIREMENTS:**

No information.

**14. TRANSPORT INFORMATION**

**DOT CLASSIFICATION (USA):**

Non-hazardous Cleaning Compound.

**TDG REGULATIONS (CANADA):**

Unclassified.

**15. REGULATORY INFORMATION:**

**U.S. FEDERAL REGULATIONS:**

**SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT):**

**302/304 EXTREMELY HAZARDOUS SUBSTANCES:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance. Extremely Hazardous Substances contained in this product are:

\*\*\*\*\*NONE\*\*\*\*\*



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CESCO BLUE RIVER

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**311/312 HAZARD CATEGORIES:**

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:

\*\*\*\*\*NONE\*\*\*\*\*

**313 REPORTABLE INGREDIENTS:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied or distributed for this material. Refer to Section II, HAZARDOUS INGREDIENTS/SARA III INFORMATION, the components that are subject to reporting are designated by an asterix (\*).

**TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:**

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

N/AV

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

N/AV

**STATE REGULATIONS:**

**16. OTHER INFORMATION**

**NFPA RATINGS:**

HEALTH (H): 1      FIRE (F): 0      REACTIVITY (R): 0

**HMIS CODES:**

HEALTH (H): 1      FIRE (F): 0      PHYSICAL HAZARD (P): 0

**MSDS REVISION DATE:** April 28, 2015

**NAME OF PREPARER:** Environmental, Health & Safety Department.

**CONTACT PHONE NUMBER:** (360) 733-7478

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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## TECHNICAL DATA SHEET

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### ***CESCO SOLUTIONS** for the Food & Beverage Industry*

## **CESCO BLUE RIVER**

**DESCRIPTION:** CESCO BLUE RIVER is a soft metal safe degreaser with wetting and penetrating agents. This product is ideal in removing mechanical lubricants and greases.

**APPLICATION:** CESCO BLUE RIVER is designed for environmental and food contact surface foaming or manual cleaning applications. Please contact your CESCO Solutions representative for specific application recommendations.

Application Method	Recommended Concentration Level			
	oz per 1 gallon / mL per 1 L			
	Manual	1.28 oz / 10 mL	3.84 oz / 30 mL	6.4 oz / 50 mL
	Foam	2.56 oz / 20 mL	6.4 oz / 50 mL	12.8 oz / 100 mL
		Light	Medium	Heavy
Soil Load				

#### **PRODUCT DATA:**

<b>Appearance</b>	Clear Blue Liquid
<b>Odor</b>	Mild Synthetic Odor
<b>pH (of 5% dispersion)</b>	10.5 – 11.0
<b>Viscosity</b>	Non Viscous
<b>Specific Gravity @ 20 °C</b>	1.01 – 1.03
<b>Sudsing</b>	High Foaming
<b>Rinsibility</b>	Excellent

**STORAGE:** Store in well sealed, vented, corrosion resistant containers that are protected from physical damage and kept above freezing and no hotter than 100°F. Store all products on properly sized spill containment units. CESCO BLUE RIVER is currently available in the following sizes:

5 Gallon Pail  
55 Gallon Drum  
275 Gallon Tote  
Bulk



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### CESCO FOAMING AVALANCHE

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

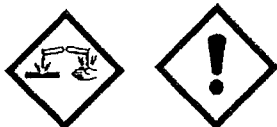
PRODUCT NAME : CESCO FOAMING AVALANCHE  
PRODUCT USE : Alkaline High Foam Cleaning Compound  
PRODUCT DESCRIPTION : Light amber with slight organic odor.  
WHMIS CLASSIFICATION: E - Corrosive Material

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger



HAZARD STATEMENTS: Causes eye and skin burns.  
Harmful if swallowed.  
Corrosive.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Causes severe burns to eyes. Eye damage may be permanent. SODIUM HYDROXIDE: Corrosive. Contact may cause disintegration and sloughing of conjunctival and corneal epithelium, corneal opacification, marked edema and ulceration. After 7-13 days, either gradual recovery begins or there is progression of ulceration and corneal opacification. Complications of severe eye burns are symblepharon with overgrowth of the cornea by a vascularized membrane, progression or recurrent corneal laceration and permanent corneal opacification.

##### SKIN:

Causes severe burns to skin and all body tissues.

##### INGESTION:

Harmful if swallowed. Ingestion may cause burns to the mouth and esophagus. SODIUM HYDROXIDE: Corrosive. May cause severe abdominal pain, corrosion of the lips, mouth, tongue and pharynx, and vomiting of large pieces of mucosa. Asphyxia can occur from swelling of the throat. Perforation of the esophagus and stomach may occur. Cases of squamous cell carcinoma of the esophagus have occurred with latent periods of 12-42 years after ingestion. These cancers are believed to be sequela of tissue destruction and possibly scar formation rather than the result of direct carcinogenic action of the sodium hydroxide.

##### INHALATION:



CESCO SOLUTIONS, INC.  
CESCO FOAMING AVALANCHE

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SODIUM HYDROXIDE: CORROSIVE. 200 mg/m3 is immediately dangerous to life and health. The effects may vary from mild irritation of the nose at 2 mg/m3 to severe pneumonitis, depending upon the severity of exposure. Low concentrations may cause sore throat, coughing, and labored breathing. Intense exposures may result in delayed pulmonary edema.

**MEDICAL CONDITIONS AGGRAVATED:**

N/AV

**CHRONIC (CANCER) INFORMATION:**

SODIUM HYDROXIDE: There is no data available on the chronic effects of ingestion of this material.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

No Information.

**REPRODUCTION INFORMATION:**

No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
POTASSIUM HYDROXIDE SOLUTION	1310-58-3	20 - 30%
.....OSHA PEL-2MG/M3 Ceiling	ACGIH TLV-2MG/M3 Ceiling	
SODIUM HYDROXIDE, 50% SOLUTION	1310-73-2	0 - 10%
.....OSHA PEL-2MG/M3	ACGIH TLV-2MG/M3	

**4. FIRST AID MEASURES**

**EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eyewash is essential if permanent injury is to be avoided. In case of chemical burns, apply sterile bandages loosely to eyes without medication. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately. Prolong washing in serious cases until doctor arrives. GET MEDICAL CARE FOR EVIDENCE OF BURNING. If evidence of chemical burn exists, cover with sterile, dry dressing. Bandage securely, but not too tightly.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.

**INHALATION:**

Remove from exposure to mist. If breathing has stopped, provide artificial respiration. Keep the person warm and at rest. OBTAIN IMMEDIATE MEDICAL ATTENTION.

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CESCO FOAMING AVALANCHE

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## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES:

FLASH POINT: None                      Method: N/AV  
FLAMMABLE LIMITS: Lower: N/A              Upper: N/A  
AUTOIGNITION TEMPERATURE: N/AV

### HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition products may include toxic and hazardous oxides of carbon and sodium.

### EXTINGUISHING MEDIA:

Use media appropriate for surrounding material. Use water spray to cool containers exposed to fire from as far a distance as possible. DO NOT get water inside containers. Generates heat upon addition of water, with possible spattering. Use water spray to absorb corrosive vapors.

### FIREFIGHTING INSTRUCTIONS:

SCBA recommended with a full face piece operated in pressure-demand mode or other positive pressure mode. Wear full protective clothing. Run-off may cause pollution. Dike to contain run-off for proper handling as stated in Section VII.

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Negligible fire hazard when exposed to heat or flame.

### SENSITIVE TO STATIC DISCHARGE:

No Information

### SENSITIVE TO IMPACT

None known.

## 6. ACCIDENTAL RELEASE MEASURES

Do not touch spilled material. Stop leak if you can without risk. For SMALL SPILLS pick up spill with vacuum equipment (alkali resistant) for disposal, or flush to holding area with water. Neutralize residues with dilute acid and rinse with water.

For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away from area. Isolate hazard area and deny entry.

A spill or release of sodium hydroxide may trigger the emergency release reporting requirements under SARA, Title III (40CFR, Part 355) and /or CERCLA (40CFR, Part 300). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.

## 7. HANDLING AND STORAGE

Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Drains must have retention basins for pH adjustment and neutralization of spilled materials and flushings prior to discharge. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water. DO NOT store in ALUMINUM containers as

CESCO SOLUTIONS, INC.  
CESCO FOAMING AVALANCHE

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flammable hydrogen gas can be generated. Do not use aluminum fittings or transfer lines. Avoid contact with acids. DO NOT permit workers to handle caustic materials without proper training and proper equipment. Avoid contact with incompatible chemicals listed in Section V.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design exhaust systems.

### RESPIRATORY PROTECTION:

None needed for normal operating conditions. Have available and wear as appropriate for exposure limits: NIOSH/MSHA approved respirator. Supplied-air respirator with a full face-piece, helmet or hood; self-contained breathing apparatus with a full face-piece.

### SKIN PROTECTION:

Impervious protective clothing is required. Impervious rain slicker gear, rubber gloves, and rubber boots with tops covered by apron or clothing to prevent entrance of any material.

### EYE PROTECTION:

This product may irritate or damage eyes. Proper eye protection is required. Employees must wear splash proof/dust proof safety goggles or safety glasses with a full face-shield to prevent eye contact with this product. DO NOT WEAR CONTACT LENSES.

### PROTECTIVE GLOVES:

Employee must wear chemical resistant protective gloves to prevent contact with this substance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 235°F

APPEARANCE & ODOR: Light amber with slight organic odor.

VAPOR DENSITY: N/AV

VAPOR PRESSURE: N/AV

SPECIFIC GRAVITY: 1.19

pH: >12.5 (5% solution)

SOLUBILITY IN WATER: N/AV

VOC: N/AV

## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY (CONDITIONS TO AVOID):

Flammable hydrogen gas may be generated upon contact with metals such as aluminum, tin and zinc.

### INCOMPATIBILITY:

CESCO SOLUTIONS, INC.  
CESCO FOAMING AVALANCHE

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Acids. This product is alkaline - avoid contact with acidic materials. Addition of water creates heat and may cause spattering. Prolonged contact with metals such as aluminum, tin, lead and zinc may produce flammable hydrogen gas.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition products may include toxic and hazardous oxides of carbon and sodium.

**HAZARDOUS POLYMERIZATION:**

May cause the violent polymerization of acetaldehyde, acrolein or acrylonitrile.

**11. TOXICOLOGICAL INFORMATION**

**CHRONIC/CARCINOGENICITY:**

N/AV

**TERATOLOGY:**

N/AV

**REPRODUCTION:**

N/AV

**MUTAGENICITY:**

N/AV

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:**

Current data is not available.

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:**

Waste caustic must NEVER be discharged directly to sewers or surface waters. First convert to neutral salts and dilute well with water. Inform legal authorities of uncontrolled spills.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

As currently defined in the federal Resource Conservation Act (RCRA), sodium hydroxide, when discarded, is a hazardous waste as defined under 40 CFR 261.22 as exhibiting the characteristics of corrosivity. Its disposal is, therefore, regulated by federal RCRA regulations.

**CLEAN WATER ACT REQUIREMENTS:**

NaOH is listed under Section 311 as requiring the submission of a National Pollutant Discharge Elimination System (NPDES) permit application to the EPA. Once a permit is issued, NaOH is exempted from the reporting requirements of Section 311 relating to spills.

CESCO SOLUTIONS, INC.  
CESCO FOAMING AVALANCHE

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#### 14. TRANSPORT INFORMATION

##### DOT CLASSIFICATION (USA):

UN 1719, Caustic Alkali Liquids, N.O.S., (Contains Sodium Hydroxide/Potassium Hydroxide) Class 8, PG II

##### TDG REGULATIONS (CANADA):

UN 1719, Caustic Alkali Liquids, N.O.S., (Contains Sodium Hydroxide/Potassium Hydroxide) Class 8, PG II

#### 15. REGULATORY INFORMATION:

##### U.S. FEDERAL REGULATIONS:

##### SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT):

##### 302/304 EXTREMELY HAZARDOUS SUBSTANCES:

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Extremely Hazardous Substances contained in this product are: \*\*\*NONE\*\*\*. Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance. Sodium hydroxide is considered a CERCLA Hazardous substance with a reportable quantity (RQ) of 2,630 lbs of CESCO FOAMING AVALANCHE.

##### 311/312 HAZARD CATEGORIES:

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Immediate (Acute) Health Hazard. A Reactive Hazard.

##### 313 REPORTABLE INGREDIENTS:

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all MSDS's that are copied or distributed for this material. Refer to Section 3, COMPOSITION/ INFORMATION ON INGREDIENTS, the components that are subject to reporting are designated by an asterisk (\*).

##### TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

##### RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:

N/AV

##### INTERNATIONAL REGULATIONS:

CESCO SOLUTIONS, INC.  
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**CANADIAN WHMIS:**

N/AV

**STATE REGULATIONS:**

**16. OTHER INFORMATION**

**NFPA RATING:**

HEALTH (H): 3      FIRE (F): 0      REACTIVITY (R): 1

**HMIS CODES:**

HEALTH (H): 3      FIRE (F): 0      PHYSICAL HAZARD (P): 1

**MSDS REVISION DATE:** December 16, 2016

**NAME OF PREPARER:** Environmental, Health & Safety Department.

**CONTACT PHONE NUMBER:** (360) 733-7478

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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## SAFETY DATA SHEET

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Fax 360.733.7479      Bellingham WA 98226

### CESCO RED SKY

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CESCO RED SKY  
PRODUCT USE : Phosphoric/Sulfuric Acid High Foaming Cleaning  
Compound/ Foaming Acid

PRODUCT DESCRIPTION : Clear red, non-viscous liquid with mild synthetic odor.

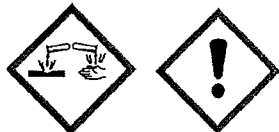
WHMIS CLASSIFICATION: E - Corrosive Material

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger



HAZARD STATEMENTS: Causes severe skin and eye burns.  
Harmful if swallowed.  
Corrosive.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Causes severe burns to eyes. Eye damage may be permanent.

##### SKIN:

Causes severe burns to skin and all body tissues.

##### INGESTION:

Harmful if swallowed. Ingestion may cause burns to the mouth and esophagus.

##### INHALATION:

Inhalation can cause nose, throat and respiratory tract irritation and coughing.

##### MEDICAL CONDITIONS AGGRAVATED:

N/AV

##### CHRONIC (CANCER) INFORMATION:

There is no data available on the chronic effects of ingestion of this material.

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**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

No Information.

**REPRODUCTION INFORMATION:**

No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
PHOSPHORIC ACID, 75-86%	7664-38-2	20 - 30%
OSHA PEL-1MG/M3 OSHA STEL-3MG/M3 ACGIH TLV-1MG/M3 ACGIH STEL-3MG/M3		
* SULFURIC ACID, 50%	7664-93-9	0 - 10%
..... OSHA PEL-1MG/M3 ACGIH TLV-1MG/M3 OTHER LIMIT-1MG/M3		
.....HAZARD-CORROSIVE		
ALKYLBENZENESULFONIC ACID	27176-87-0	0 - 10%

**4. FIRST AID MEASURES**

**EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eyewash is essential if permanent injury is to be avoided. In case of chemical burns, apply sterile bandages loosely to eyes without medication. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately. Prolong washing in serious cases until doctor arrives. GET MEDICAL CARE FOR EVIDENCE OF BURNING. If evidence of chemical burn exists, cover with sterile, dry dressing. Bandage securely, but not too tightly.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.

**INHALATION:**

Remove from exposure to mist. If breathing has stopped, provide artificial respiration. Keep the person warm and at rest. OBTAIN IMMEDIATE MEDICAL ATTENTION.

**5. FIRE FIGHTING MEASURES**

**FLAMMABLE PROPERTIES:**



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FLASH POINT: None

Method: COC

FLAMMABLE LIMITS: Lower: N/A

Upper: N/A

**HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition products expected to produce oxides of phosphorous.

**EXTINGUISHING MEDIA:**

Use media appropriate for surrounding material. Use water spray to cool containers exposed to fire from as far a distance as possible. DO NOT get water inside containers. Generates heat upon addition of water, with possible spattering.

**FIREFIGHTING INSTRUCTIONS:**

SCBA recommended with a full face piece operated in pressure-demand mode or other positive pressure mode. Wear full protective clothing. Run-off may cause pollution. Dike to contain run-off for proper handling as stated in Section 7.

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Negligible fire hazard when exposed to heat or flame.

**SENSITIVE TO STATIC DISCHARGE:**

No Information

**SENSITIVE TO IMPACT**

None known.

**6. ACCIDENTAL RELEASE MEASURES**

Do not touch spilled material. Stop leak if you can without risk. For SMALL SPILLS pick up spill with vacuum equipment (acid resistant) for disposal, or flush to holding area with water. Neutralize residues with lime or soda ash and rinse with water.

For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away from area. Isolate hazard area and deny entry.

**7. HANDLING AND STORAGE**

Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Drains must have retention basins for pH adjustment and neutralization of spilled materials and flushings prior to discharge. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water. Avoid contact with incompatible chemicals listed in Section 10. DO NOT permit workers to handle ACID solutions without proper training and proper equipment. DO NOT store in ALUMINUM containers as flammable hydrogen gas can be generated. Do not use aluminum fittings or transfer lines. Avoid contact with alkalis.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**ENGINEERING CONTROLS:**

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design exhaust systems.

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**RESPIRATORY PROTECTION:**

None needed for normal operating conditions. Have available and wear as appropriate for exposure limits:  
NIOSH/MSHA approved respirator. Supplied-air respirator with a full face-piece, helmet or hood: self-contained  
breathing apparatus with a full face-piece.

**SKIN PROTECTION:**

Apron or protective clothing, and rubber boots (tops covered by apron or clothing to prevent entrance of  
material).

**EYE PROTECTION:**

Employee must wear splash proof and/or dust-resistant safety goggles with a full face-shield to prevent  
eye contact with this substance. DO NOT WEAR CONTACT LENSES.

**PROTECTIVE GLOVES:**

Employee must wear appropriate protective gloves to prevent contact with this substance.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

BOILING POINT: 316F

APPEARANCE & ODOR: Clear red, non-viscous liquid with mild synthetic  
odor.

VAPOR DENSITY: N/AV

VAPOR PRESSURE: N/AV

SPECIFIC GRAVITY: 1.18

pH: 1.0 - 1.5 (5% solution)

SOLUBILITY IN WATER: Complete.

VOC: N/AV

**10. STABILITY AND REACTIVITY**

**CHEMICAL STABILITY (CONDITIONS TO AVOID):**

Flammable hydrogen gas may be generated upon contact with metals such as aluminum, tin and zinc.

**INCOMPATIBILITY:**

This product is acidic - avoid contact with alkaline materials. Addition of water creates heat and may  
cause spattering. Prolonged contact with metals such as aluminum, tin, lead and zinc may product flammable  
hydrogen gas. Reacts violently with strong alkalies.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Thermal decomposition products expected to produce oxides of phosphorous.

**HAZARDOUS POLYMERIZATION:**

Has not been reported to occur.

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## 15. REGULATORY INFORMATION:

### U.S. FEDERAL REGULATIONS:

#### SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT):

##### 302/304 EXTREMELY HAZARDOUS SUBSTANCES:

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Extremely Hazardous Substances contained in this product are:

\*\*\*NONE\*\*\*. Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance.

Phosphoric acid and sulfuric acid are considered a CERCLA Hazardous substances with a reportable quantity (RQ) of 22,220 lbs of CESCO RED SKY for phosphoric acid and 20,000 lbs. of CESCO RED SKY as sulfuric acid.

##### 311/312 HAZARD CATEGORIES:

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Immediate (Acute) Health Hazard.

##### 313 REPORTABLE INGREDIENTS:

This product contains toxic chemical(s) (listed above) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and of 40 CFR 372. The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDS's that are copied or distributed for this material. Refer to Section 3, HAZARDOUS INGREDIENTS/SARA III INFORMATION, the components that are subject to reporting are designated by an asterix (\*).

### TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

### RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:

N/AV

### INTERNATIONAL REGULATIONS:

### CANADIAN WHMIS:

N/AV

### STATE REGULATIONS:

## 16. OTHER INFORMATION

### NFPA RATINGS:

HEALTH (H): 3      FIRE (F): 0      REACTIVITY (R): 2



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**HMIS CODES:**

HEALTH (H): 3      FIRE (F): 0      PHYSICAL HAZARD (P): 2

**SDS REVISION DATE:** October 2, 2017

**NAME OF PREPARER:** Environmental, Health & Safety Department.

**CONTACT PHONE NUMBER:** (360) 733-7478

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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## TECHNICAL DATA SHEET

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Toll Free 800.241.9110    2227 Midway Lane  
Fax 360.733.7479    Bellingham WA 98226

### ***CESCO SOLUTIONS** for the Food & Beverage Industry*

#### **CESCO RED SKY**

**DESCRIPTION:** CESCO RED SKY is a blended phosphoric and sulfuric acid detergent that contains a premium inhibitor, wetting and penetrating agents. It is designed for mineral scale removal from process equipment. The blended acid formula results in quicker breakup of minerals compared to standard phosphoric acid solutions. CESCO RED SKY is also effective in the removal of denatured proteins and protein films.

**APPLICATION:** CESCO RED SKY is used primarily for foam and manual cleaning in food processing plants. Please contact your CESCO Solutions representative for specific application recommendations.

Recommended Concentration Level				
Application Method	oz per 1 gallon / mL per 1 L			
	Manual	1.28 oz / 10 mL	3.84 oz / 30 mL	6.4 oz / 50 mL
	Foam	1.28 oz / 10 mL	3.84 oz / 30 mL	6.4 oz / 50 mL
Soil Load				
		Light	Medium	Heavy

#### **PRODUCT DATA:**

<b>Appearance</b>	Clear Red Liquid
<b>Odor</b>	Mild Synthetic Cleaner Odor
<b>pH (of 5% dispersion)</b>	~1.3
<b>Viscosity</b>	Non Viscous
<b>Specific Gravity @ 20 °C</b>	1.17 – 1.19
<b>Sudsing</b>	High Foaming
<b>Rinsibility</b>	Excellent

**STORAGE:** Store in well sealed, vented, corrosion resistant containers that are protected from physical damage and kept above freezing and no hotter than 100°F. DO NOT store this product where it could come in contact or meet in a common drain with a chlorinated or caustic product. Store all products on properly sized spill containment units. CESCO RED SKY is currently available in the following sizes:

5 Gallon Pail  
55 Gallon Drum  
275 Gallon Tote  
Bulk



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### CESCO HURRICANE C5

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CESCO HURRICANE C5  
PRODUCT USE : Chlorinated Alkaline Foaming Detergent  
PRODUCT DESCRIPTION : Light amber, non-viscous liquid with chlorine odor.

WHMIS CLASSIFICATION: E - Corrosive Material

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger



HAZARD STATEMENTS: Causes severe burns to skin, body tissue, and eyes.  
Harmful if swallowed.  
Corrosive.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Causes severe burns to eyes. Eye damage may be permanent. Corrosive. Contact may cause disintegration and sloughing of conjunctival and corneal epithelium, corneal opacification, marked edema and ulceration. After 7-13 days, either gradual recovery begins or there is progression of ulceration and corneal opacification. Complications of severe eye burns are symblepharon with overgrowth of the cornea by a vascularized membrane, progression or recurrent corneal laceration and permanent corneal opacification.

##### SKIN:

Causes severe burns to skin and all body tissues.

##### INGESTION:

Harmful if swallowed. Ingestion may cause burns to the mouth and esophagus. POTASSIUM HYDROXIDE:  
Corrosive. May cause severe abdominal pain, corrosion of the lips, mouth, tongue and pharynx, and vomiting of large pieces of mucosa. Asphyxia can occur from swelling of the throat. Perforation of the esophagus and stomach may occur. Cases of squamous cell carcinoma of the esophagus have occurred with latent periods of 12-42 years after ingestion. These cancers are believed to be sequela of tissue destruction and possibly scar formation rather than the result of direct carcinogenic action of the sodium hydroxide.

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 CESCO HURRICANE C5

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**INHALATION:**

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

**MEDICAL CONDITIONS AGGRAVATED:**

N/AV

**CHRONIC (CANCER) INFORMATION:**

There is no data available on the chronic effects of ingestion of this material.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

No Information.

**REPRODUCTION INFORMATION:**

No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
SODIUM HYPOCHLORITE SOLUTION, 12.5%	7681-52-9	20 - 30%
SODIUM HYPOCHLORITE 12.5%	HAZARD-OXIDIZER	
[CHLORINE CAS NO. 7782-50-5] [Inhal]	ACGIH TLV-0.5PPM ACGIH STEL-1PPM	
.....OSHA PEL-0.5PPM	OSHA STEL-1PPM	
SODIUM HYDROXIDE CAS NO. 1310-73-2	ACGIH 2MG/M3 OSHA PEL-2MG/M3	
.....Ceiling	Ceiling	
POTASSIUM HYDROXIDE SOLUTION	1310-58-3	10 - 20%
.....OSHA PEL-2MG/M3 Ceiling	ACGIH TLV-2MG/M3 Ceiling	
SODIUM HYDROXIDE, 50% SOLUTION	1310-73-2	0 - 10%
.....OSHA PEL-2MG/M3	ACGIH TLV-2MG/M3	

**4. FIRST AID MEASURES**

**EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eyewash is essential if permanent injury is to be avoided. In case of chemical burns, apply sterile bandages loosely to eyes without medication. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately. Prolong washing in serious cases until doctor arrives. GET MEDICAL CARE FOR EVIDENCE OF BURNING. If evidence of chemical burn exists, cover with sterile, dry dressing. Bandage securely, but not too tightly.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.

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#### **INHALATION:**

Remove from exposure to mist. If breathing has stopped, provide artificial respiration. Keep the person warm and at rest. OBTAIN IMMEDIATE MEDICAL ATTENTION.

### **5. FIRE FIGHTING MEASURES**

#### **FLAMMABLE PROPERTIES:**

FLASH POINT: None

Method: Not Applicable

FLAMMABLE LIMITS: Lower: N/A

Upper: N/A

#### **HAZARDOUS COMBUSTION PRODUCTS:**

Thermal decomposition products may include toxic and hazardous oxides of carbon and sodium.

#### **EXTINGUISHING MEDIA:**

Use media appropriate for surrounding material. Use water spray to cool containers exposed to fire from as far a distance as possible. DO NOT get water inside containers. Generates heat upon addition of water, with possible spattering. Use water spray to absorb corrosive vapors.

#### **FIREFIGHTING INSTRUCTIONS:**

SCBA recommended with a full face piece operated in pressure-demand mode or other positive pressure mode. Wear full protective clothing. Run-off may cause pollution. Dike to contain run-off for proper handling as stated in Section 7.

#### **UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Negligible fire hazard when exposed to heat or flame.

#### **SENSITIVE TO STATIC DISCHARGE:**

No Information

#### **SENSITIVE TO IMPACT**

N/AV

### **6. ACCIDENTAL RELEASE MEASURES**

Do not touch spilled material. Stop leak if you can without risk. For SMALL SPILLS pick up spill with vacuum equipment (alkali resistant) for disposal, or flush to holding area with water. Neutralize residues with dilute acid and rinse with water.

For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away from area. Isolate hazard area and deny entry.

A spill or release of sodium hydroxide may trigger the emergency release reporting requirements under SARA, Title III (40CFR, Part 355) and /or CERCLA (40CFR, Part 300). State or local reporting requirements may differ from federal requirements. Consult counsel for further guidance on your responsibilities under these laws.



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## 7. HANDLING AND STORAGE

Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Drains must have retention basins for pH adjustment and neutralization of spilled materials and flushings prior to discharge. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water. DO NOT store in ALUMINUM containers as flammable hydrogen gas can be generated. Do not use aluminum fittings or transfer lines. Avoid contact with acids. DO NOT permit workers to handle caustic materials without proper training and proper equipment. Avoid contact with incompatible chemicals listed in Section 10.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design exhaust systems.

### RESPIRATORY PROTECTION:

None needed for normal operating conditions. Have available and wear as appropriate for exposure limits: NIOSH/MSHA approved respirator. Supplied-air respirator with a full face-piece, helmet or hood: self-contained breathing apparatus with a full face-piece.

### SKIN PROTECTION:

Impervious protective clothing is required. Impervious rain slicker gear, rubber gloves, and rubber boots with tops covered by apron or clothing to prevent entrance of any material.

### EYE PROTECTION:

This product may irritate or damage eyes. Proper eye protection is required. Employees must wear splash proof/dust proof safety goggles or safety glasses with a full face-shield to prevent eye contact with this product. DO NOT WEAR CONTACT LENSES.

### PROTECTIVE GLOVES:

Employee must wear chemical resistant protective gloves to prevent contact with this substance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 219°F

APPEARANCE & ODOR: Light amber, non-viscous liquid with chlorine odor.

VAPOR DENSITY: N/AV

VAPOR PRESSURE: N/AV

SPECIFIC GRAVITY: 1.168

pH: >12.5 (5% solution)

SOLUBILITY IN WATER: Complete.

VOC: N/AV

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## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY (CONDITIONS TO AVOID):

Flammable hydrogen gas may be generated upon contact with metals such as aluminum, tin and zinc.

### INCOMPATIBILITY:

Acids. This product is alkaline - avoid contact with acidic materials. Addition of water creates heat and may cause spattering. Prolonged contact with metals such as aluminum, tin, lead and zinc may produce flammable hydrogen gas.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition products may include toxic and hazardous oxides of carbon and sodium.

### HAZARDOUS POLYMERIZATION:

May cause the violent polymerization of acetaldehyde, acrolein or acrylonitrile.

## 11. TOXICOLOGICAL INFORMATION

### CHRONIC/CARCINOGENICITY:

N/AV

### TERATOLOGY:

N/AV

### REPRODUCTION:

N/AV

### MUTAGENICITY:

N/AV

## 12. ECOLOGICAL INFORMATION

### ECOTOXICOLOGICAL INFORMATION:

Current information not available.

## 13. DISPOSAL CONSIDERATIONS

### DISPOSAL METHOD:

Waste caustic must NEVER be discharged directly to sewers or surface waters. First convert to neutral salts and dilute well with water. Inform legal authorities of uncontrolled spills.

### RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:

As currently defined in the federal Resource Conservation Act (RCRA), sodium hydroxide, when discarded, is a hazardous waste as defined under 40 CFR 261.22 as exhibiting the characteristics of corrosivity. Its disposal is, therefore, regulated by federal RCRA regulations.

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**CLEAN WATER ACT REQUIREMENTS:**

No information.

**14. TRANSPORT INFORMATION**

**DOT CLASSIFICATION (USA) :**

UN 1760, Corrosive Liquid, N.O.S., (Contains Potassium & Sodium Hydroxide and Sodium Hypochlorite), Class 8, PGIII.

**TDG REGULATIONS (CANADA) :**

UN 1760, Corrosive Liquid, N.O.S., (Contains Potassium & Sodium Hydroxide and Sodium Hypochlorite), Class 8, PGIII.

**15. REGULATORY INFORMATION:**

**U.S. FEDERAL REGULATIONS:**

**SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT) :**

**302/304 EXTREMELY HAZARDOUS SUBSTANCES:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Extremely Hazardous Substances contained in this product are: \*\*\*NONE\*\*\*. Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance. CESCO HURRICANE C5 contains materials considered CERCLA Hazardous substances with a reportable quantities (RQ) as follows:  
3,785 lbs as Sodium Hypochlorite; 18,300 lbs as Potassium Hydroxide; and 25,000 lbs. as Sodium Hydroxide.

**311/312 HAZARD CATEGORIES:**

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Immediate (Acute) Health Hazard. A Reactive Hazard.

**313 REPORTABLE INGREDIENTS:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDS's that are copied or distributed for this material. Refer to Section 3, HAZARDOUS INGREDIENTS/SARA III INFORMATION, the components that are subject to reporting are designated by an asterix (\*).

**TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:**

All ingredients are on the TSCA inventory or are not required to be listed on the TSCA inventory.

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**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

N/AV

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

N/AV

**STATE REGULATIONS:**

**16. OTHER INFORMATION**

**NFPA RATINGS:**

HEALTH (H): 3      FIRE (F): 0      REACTIVITY (R): 1

**HMIS CODES:**

HEALTH (H): 3      FIRE (F): 0      PHYSICAL HAZARD (P): 1

**SDS REVISION DATE:**    October 2, 2017

**NAME OF PREPARER:** Environmental, Health & Safety Department.

**CONTACT PHONE NUMBER:** (360) 733-7478

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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## **CESCO SOLUTIONS** for the Food & Beverage Industry

### **CESCO HURRICANE C5**

**DESCRIPTION:** CESCO HURRICANE C5 is a strong alkaline, high foaming, chlorinated cleaning compound with wetting, penetrating and chelant builders. This combination of ingredients makes CESCO HURRICANE C5 an ideal product for removal of the following soils: fats, starches and proteins. The oxidizing properties of this product give it boosted effectiveness in the break-up of protein soils.

**APPLICATION:** CESCO HURRICANE C5 is designed for environmental and food contact surface foaming or manual cleaning applications. Due to the chlorinated properties of this product, it should be limited to use on stainless steel and plastic surfaces. Please contact your Cesco Solutions representative for specific application recommendations.

Application Method	Recommended Concentration Level			
	oz per 1 gallon / mL per 1 L			
	Manual	1.28 oz / 10 mL	2.56 oz / 20 mL	3.84 oz / 30 mL
	Foam	2.56 oz / 20 mL	3.84 oz / 30 mL	5.12 oz / 40 mL
		Light	Medium	Heavy
	Soil Load			

#### **PRODUCT DATA:**

<b>Appearance</b>	Light Amber Liquid
<b>Odor</b>	Chlorine Odor
<b>pH (of 5% dispersion)</b>	>12.5
<b>Viscosity</b>	Viscous
<b>Specific Gravity @ 20 °C</b>	1.16 – 1.18
<b>Sudsing</b>	High Foaming
<b>Rinsibility</b>	Excellent

**STORAGE:** Store in well sealed, vented, corrosion resistant containers that are protected from physical damage and kept above freezing and no hotter than 100°F. DO NOT store this product where it could come in contact or meet in a common drain with an acid product. Avoid direct sunlight to prevent loss of product activity. Store all products on properly sized spill containment units. CESCO HURRICANE C5 is currently available in the following sizes:

5 Gallon Pail  
55 Gallon Drum  
275 Gallon Tote



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### CESCO WHITE FOG

#### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : CESCO WHITE FOG  
PRODUCT USE : Quaternary ammonium chloride  
sanitizer/disinfectant/ Quat Sanitizer (registered)

PRODUCT DESCRIPTION : Clear, colorless, non-viscous with organic odor.  
WHMIS CLASSIFICATION: E - Corrosive Material D2B - Toxic Material

MANUFACTURER : CESCO SOLUTIONS, INC.  
ADDRESS : 2227 Midway Lane, Bellingham, WA 98226

EMERGENCY PHONE : 1-800-424-9300  
INFORMATION PHONE : (360) 733-7478

#### 2. HAZARDS IDENTIFICATION

SIGNAL WORD: Danger



HAZARD STATEMENTS: Causes severe skin and eye burns.  
Harmful if swallowed.  
Corrosive.

#### POTENTIAL HEALTH EFFECTS

##### EYES:

Causes severe burns to eyes. Eye damage may be permanent.

##### SKIN:

Causes corrosive burns. Brief exposure may cause irritation and defatting of the skin.

##### INGESTION:

Although relatively low in toxicity, ingestion can cause gastrointestinal irritation, swelling of the larynx, difficulty in breathing, circulatory shock, convulsions and possibly death.

##### INHALATION:

Inhalation can cause nose, throat and respiratory tract irritation and coughing. Vapors are irritating to the eyes and respiratory tract and may cause headaches, dizziness, anesthesia, drowsiness, unconsciousness, and other central nervous system effects, including death.

#### MEDICAL CONDITIONS AGGRAVATED:

N/AV

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CESCO WHITE FOG

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**CHRONIC (CANCER) INFORMATION:**

Ingestion of ethanol by pregnant women can cause reproductive toxicity to the fetus.

**TERATOLOGY (BIRTH DEFECT) INFORMATION:**

No Information.

**REPRODUCTION INFORMATION:**

No Information.

**3. COMPOSITION / INFORMATION ON INGREDIENTS**

Component/Exposure Limits	CAS#	WT%
QUATERNARY AMMONIUM COMPOUND		10 - 20%
Alkyl dimethyl benzyl ammonium chloride	CAS # 68424-85-1	4-5%
Octyl decyl dimethyl ammonium chloride	CAS # 32426-11-2	3-4%
Dioctyl dimethyl ammonium chloride	CAS # 5538-94-3	1-2%
Didecyl dimethyl ammonium chloride	CAS # 7173-51-5	1-2%
Ethanol (ACGIH 1000 ppm)	CAS # 64-17-5	<2%

**4. FIRST AID MEASURES****EYES:**

Wash eyes immediately with plenty of running water for 15-20 minutes, or until no evidence of chemical remains, including under eyelids. Remove any contact lenses at once. Speed in beginning the eyewash is essential if permanent injury is to be avoided. In case of chemical burns, apply sterile bandages loosely to eyes without medication. GET MEDICAL ATTENTION IMMEDIATELY.

**SKIN:**

Flush contaminated skin with water for 15 minutes, or until no evidence of chemical remains. Remove contaminated clothing under the shower immediately. Prolong washing in serious cases until doctor arrives. GET MEDICAL CARE FOR EVIDENCE OF BURNING. If evidence of chemical burn exists, cover with sterile, dry dressing. Bandage securely, but not too tightly.

**INGESTION:**

Do not induce vomiting. Drink a large glass of water. Treat symptomatically and supportively. GET MEDICAL ATTENTION IMMEDIATELY. CAUTION: IF UNCONSCIOUS OR HAVING TROUBLE BREATHING OR IN CONVULSIONS, DO NOT INDUCE VOMITING OR GIVE WATER.

**INHALATION:**

Remove from exposure to mist. If breathing has stopped, provide artificial respiration. Keep the person warm and at rest. OBTAIN IMMEDIATE MEDICAL ATTENTION.

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## 5. FIRE FIGHTING MEASURES

### FLAMMABLE PROPERTIES:

FLASH POINT: None

Method: COC

FLAMMABLE LIMITS: Lower: N/A

Upper: N/A

### HAZARDOUS COMBUSTION PRODUCTS:

Thermal decomposition may release toxic hydrogen chloride fumes, oxides of carbon and nitrogen.

### EXTINGUISHING MEDIA:

Dry chemical, carbon dioxide, water spray or foam.

### FIREFIGHTING INSTRUCTIONS:

SCBA recommended with a full face piece operated in pressure-demand mode or other positive pressure mode.

Wear full protective clothing. Run-off may cause pollution. Dike to contain run-off for proper handling as stated in Section 7.

### UNUSUAL FIRE AND EXPLOSION HAZARDS:

Combustion products are toxic.

### SENSITIVE TO STATIC DISCHARGE:

No Information

### SENSITIVE TO IMPACT

None known.

## 6. ACCIDENTAL RELEASE MEASURES

Do not touch spilled material. Stop leak if you can without risk. Isolate hazard area and deny entry.

Stay upwind. Keep out of low areas where vapors may accumulate. Ventilate closed areas before entering. All equipment used when handling this product must be grounded. Floor may be slippery. A vapor suppressing foam may be used to suppress foam. Water spray may reduce vapors but will increase foaming. Prevent entry into waterways, sewers, basements or confined areas.

For SMALL SPILLS cover with sand or other absorbent material. With a clean shovel place all spilled material, contaminated soil and other contaminated material into a clean, dry container and cover for later disposal. Move containers from spill area. For LARGER SPILLS, dike far ahead of spill for later disposal. Keep unnecessary people away.

## 7. HANDLING AND STORAGE

Avoid contact with incompatible chemicals listed in Section 10. Store in well sealed containers which are protected from physical damage. Avoid handling conditions that can lead to spills or mist formation. Have abundant running water available where material is stored, unloaded or handled. Store above the freezing point of water and no hotter than 100 degrees F.



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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### ENGINEERING CONTROLS:

Provide natural or mechanical ventilation to minimize exposure, especially where possibility of mist formation exists. If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult NFPA Standard 91 for design exhaust systems. Ventilation equipment must be explosion proof.

### RESPIRATORY PROTECTION:

If misty conditions are encountered, wear a NIOSH approved organic filter respirator.

### SKIN PROTECTION:

Employee should wear protective clothing and equipment to prevent repeated contact with this substance.

### EYE PROTECTION:

Employee must wear safety goggles to prevent eye contact with this substance. DO NOT WEAR CONTACT LENSES.

### PROTECTIVE GLOVES:

Employee must wear appropriate protective gloves to prevent contact with this substance.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: N/A  
APPEARANCE & ODOR: Clear, colorless, non-viscous with organic odor.  
VAPOR DENSITY: Heavier than air.  
VAPOR PRESSURE: N/A  
SPECIFIC GRAVITY: .99  
pH: 6 - 9  
SOLUBILITY IN WATER: Complete.  
VOC: 1.5% VOC's

## 10. STABILITY AND REACTIVITY

### CHEMICAL STABILITY (CONDITIONS TO AVOID):

Heat, heated surfaces, static electricity, electric arcs, sparks and flames. Incompatible materials.

### INCOMPATIBILITY:

Reducing Agents. Strong oxidizing agents.

### HAZARDOUS DECOMPOSITION PRODUCTS:

Thermal decomposition may release toxic hydrogen chloride fumes, oxides of carbon and nitrogen.

### HAZARDOUS POLYMERIZATION:

Has not been reported to occur.

## 11. TOXICOLOGICAL INFORMATION

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**CHRONIC/CARCINOGENICITY:**

N/AV

**TERATOLOGY:**

N/AV

**REPRODUCTION:**

N/AV

**MUTAGENICITY:**

N/AV

**12. ECOLOGICAL INFORMATION**

**ECOTOXICOLOGICAL INFORMATION:**

Acute Oral LD50: 1,850 mg/kg for male and female rats combined.  
Acute Dermal LD50: >2,000 mg/kg in albino rabbits.  
Primary Skin: Corrosive  
Primary Eye: Corrosive

**13. DISPOSAL CONSIDERATIONS**

**DISPOSAL METHOD:**

This substance, when discarded or disposed of, is a characteristic hazardous waste according to federal regulations (40 CFR 261) and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with the regulations of 40 CFR 262, 263, 264 and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional or local regulations. Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

Cleaned-up material is a RCRA Hazardous Waste on disposal due to the corrosivity characteristics. Do not flush to surface waters or sanitary sewer system.

**CLEAN WATER ACT REQUIREMENTS:**

N/AV

**14. TRANSPORT INFORMATION**

**DOT CLASSIFICATION (USA):**

UN 1903, Disinfectant, Liquid, Corrosive, N.O.S. (contains Quaternary Ammonium Compound), Class 8, PG II.

**TDG REGULATIONS (CANADA):**

UN 1903, Disinfectant, Liquid, Corrosive, N.O.S. (contains Quaternary Ammonium Compound), Class 8, PG II.

**15. REGULATORY INFORMATION:**

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**U.S. FEDERAL REGULATIONS:**

**SARA TITLE III (SUPERFUND AMENDMENTS & REAUTHORIZATION ACT):**

**302/304 EXTREMELY HAZARDOUS SUBSTANCES:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, Section 302 requires notification of the State Emergency Response Commission (SERC) and Local Emergency Planning Committee (LEPC) of the presence of Extremely Hazardous Substances (EHS), 40 CFR 355 Appendix A, in amounts in excess of the threshold planning quantity (TPQ). Section 304 requires notification of SERC and LEPC of releases involving a RQ of an EHS or CERCLA Hazardous Substance. Extremely Hazardous Substances contained in this product are:

\*\*\*\*\*NONE\*\*\*\*\*

**311/312 HAZARD CATEGORIES:**

This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: An Immediate (Acute) Health Hazard. A Fire Hazard.

**313 REPORTABLE INGREDIENTS:**

The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III, requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). This information must be included in all SDS's that are copied or distributed for this material. Refer to Section 3, HAZARDOUS INGREDIENTS/SARA III INFORMATION, the components that are subject to reporting are designated by an asterix (\*).

**TSCA (TOXIC SUBSTANCE CONTROL ACT) STATUS:**

This product is regulated as a pesticide under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) and not subject to the TSCA inventory rules for FIFRA uses.

**RCRA (RESOURCE CONSERVATION & RECOVERY ACT) REQUIREMENTS:**

N/AV

**INTERNATIONAL REGULATIONS:**

**CANADIAN WHMIS:**

N/AV

**STATE REGULATIONS:**

**16. OTHER INFORMATION**

**NFPA RATINGS:**

HEALTH (H): 3      FIRE (F): 2      REACTIVITY (R): 0

**HMIS CODES:**

HEALTH (H): 3      FIRE (F): 2      PHYSICAL HAZARD (P): 0



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**SDS REVISION DATE: October 2, 2017**

**NAME OF PREPARER: Environmental, Health & Safety Department.**

**CONTACT PHONE NUMBER: (360) 733-7478**

**MANUFACTURER DISCLAIMER:**

IMPORTANT: The information and data herein is based on available data. Buyer assumes all risk of use, storage and handling of this product in compliance with applicable laws and regulations. CESCO SOLUTIONS, INC., MAKES NO WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED, AND WILL NOT BE LIABLE FOR CLAIMS, RELATING TO THE ACCURACY OF THIS DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.



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## TECHNICAL DATA SHEET

Phone 360.733.7478    www.cescosolutions.com  
Toll Free 800.241.9110    2227 Midway Lane  
Fax 360.733.7479    Bellingham WA 98226

### **CESCO SOLUTIONS** for the Food & Beverage Industry

## CESCO WHITE FOG

**DESCRIPTION:** CESCO WHITE FOG is a fifth generation, 4 chain quaternary ammonium based sanitizer and disinfectant. It is a broad spectrum antimicrobial/slimicide product for the control of bacteria and fungus. This product is effective against, but not limited to, the following microorganisms commonly combated in the food processing industry: *Aeromonas hydrophila*, *Campylobacter jejun*, *Escherichia coli*, *Escherichia coli* O157:H7, *Enterococcus faecalis* Vancomycin resistant, *Enterobacter sakazakii*, *Listeria monocytogenes*, *Klebsiella pneumonia*, *Salmonella enteric*, *Salmonella enteritidis*, *Salmonella typhi*, *Shigella dysenteriae*, *Shigella sonnei*, *Staphylococcus aureus*, *Staphylococcus aureus* Methicillin Resistant, *Streptococcus pyogenes* and *Yersinia enterocolitica*.

**APPLICATION:** CESCO WHITE FOG can be used as a food and non-food contact no rinse sanitizer for non-porous surfaces. It is also approved for use in doorway entry foamers, as a glove dip solution and as an environmental fogger. All application methods and use concentrations are not listed below. Please review label for additional use instructions.

Application Method	Recommended Concentration Level		
		oz per 1 Gallon(s) / mL per 1 Liter(s)	PPM
	Food Contact Surface Sanitizer	1 - 2 oz per 4 Gallons / 8 - 16 mL per 4 Liters	200 - 400
	Non-Food Contact Surface Sanitizer	1 oz per 5 Gallons / 7.5 mL per 5 Liters	150
	Disinfectant	3 oz per 5 Gallons / 22.5 mL per 5 Liters	450
	Doorway Foamer	2.5 - 5 oz per 5 Gallons / 20 - 40 mL per 5 Liters	400 - 800
	Glove Dip	0.75 oz per 4 Gallons / 6 mL per 4 Liters	150
Fogging	1.5 oz per 1 Gallon / 12 mL per 1 Liter	1,200	

#### PRODUCT DATA:

Appearance	Clear, Colorless Liquid
Odor	Mild Pungent Odor
pH (of 5% dispersion)	~7.5
Viscosity	Non Viscous
Specific Gravity @ 20 °C	0.98 – 1.0
Sudsing	Moderate Foaming
Rinsibility	Excellent

**STORAGE:** Store in well sealed, vented, corrosion resistant containers that are protected from physical damage and kept above freezing and no hotter than 100°F. Store all products on properly sized spill containment units. CESCO WHITE FOG is currently available in the following sizes: 5 Gallon Pail, 55 Gallon Drum and 275 Gallon Tote.

NEW WATER BUILT  
Incoming plates

