

Renewal Application for Wastewater Discharge
For NC Machinery
Permit No. ST-6141

NC Machinery CO
Chehalis Branch
1178 NW Maryland St
Chehalis Washington 98532

Dated
September 2020

RECEIVED

NOV 02 2020

WA State Department
of Ecology (SWAP)

received
11/2/20

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Wastewater Discharge Renewal Information

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Application for a State Waste Discharge Permit to Discharge Industrial Wastewater to a Publicly-Owned Treatment Works (POTW)

This application is for a state waste discharge permit for a discharge of industrial wastewater to a publicly-owned treatment works (POTW) as required by Chapter 90.48 RCW and Chapter 173-216 WAC. It is designed to provide Ecology with information on pollutants in the waste stream, materials that may enter the waste stream, and the flow characteristics of the 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: NC Machinery
2. Facility Name: Chehalis Branch
(if different from Applicant)
3. Applicant Mail Address: 1178 NW Maryland
Street
Chehalis WA 98532
City/State Zip
4. Facility Location Address: _____
(if different from 3 above) Street

City/State Zip
5. UBI No. 6015587
48
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 facility as decimal degrees (NAD83/WGS84):
46.67 / 122.97

FOR OFFICE USE ONLY		Check One: New/Renewal <input type="checkbox"/> Modification <input type="checkbox"/>	
Date Application Received _____	Date Fee Paid _____	Application/ Permit No. _____	Date Application Accepted _____

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

John R Deans

Name

Environmental and Facilities Manager

Title

425-251-5876

Telephone number

425-656-4717

Fax number

8. Check One:



Permit Renewal (including renewal of temporary permits)

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*

August 31, 2020

Date

Environmental and Facilities Manager

Title

John R Deans

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

August 31, 2020

Date

Environmental & Facilities Manager

Title or function at the facility

Printed name

SECTION B. PRODUCT INFORMATION

1. 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: 5999-NAICS, Miscellaneous Retail

7699-NAICS, Repair and Services (Industrial and Farm Machinery and Equipment Repair)

2. List raw materials and products used at his facility:

Type	RAW MATERIALS	Quantity
<i>Grapes (Example)</i>		<i>1,000 tons per year</i>
NONE		

Type	PRODUCTS	Quantity
<i>Grape Juice(Example)</i>		<i>300,000 gallons per year</i>
NONE		

SECTION C. PLANT OPERATIONAL CHARACTERISTICS

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

Process	Waste Stream Name	Waste Stream ID#	Batch (B) or Continuous (C) Process
Equipment wash rack	WR	01	Batch

- On a separate sheet, produce a schematic drawing showing production processes, water flow through the facility, wastewater treatment devices and waste streams as named above. The drawing should indicate the source of intake water and show the operations contributing wastewater to the effluent. The treatment units should be labeled. Construct a water balance by showing average flows between intakes, operations, treatment units, and points of discharge to the POTW. *(See the example on page 16 of this application form.)*
- What is the maximum daily wastewater discharge flow? 38 gallons/day

What is the maximum average monthly wastewater discharge flow (daily flows averaged over a month)? 52 gallons/day
- Describe any planned wastewater treatment improvements or changes in wastewater disposal methods, and the schedule for these improvements. *(Use additional sheets, if necessary and label as attachment C4.)*

NONE

5. If production processes are subject to seasonal variations, provide the following information. The combined value for each month should equal the estimated total monthly flow. Please indicate the proper flow 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
Estimated Total Monthly Flow (GPD)												

6. How many hours a day does this facility typically operate? 8

How many days a week does this facility typically operate? 5

How many weeks per year does this facility typically operate? 50

7. 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 pounds for solids*). For solvents and solvent-based cleaners, include a copy of the material safety data sheet and estimate the quantity used. (*Use additional sheets, if necessary, and label as attachment C.7.*)

Materials/Quantity Stored: See Attachment C.7

8. Some types of facilities are required to have spill or waste control plans. Does this facility have:
- | | Yes | No |
|--|-------------------------------------|--------------------------|
| a. A spill prevention, control, and countermeasure plan (40 CFR 112)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. An Oil Spill Contingency Plan (chapter 173-182 WAC)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. An emergency response plan (per WAC 173-303-350)? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. A runoff, spillage, or leak control plan (per WAC 173-216-110(f))? | <input 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 type="checkbox"/> |
| f. A solid waste control plan? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. A Slug Discharge Control Plan (40 CFR 403.8(f)(2)(v))? | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION D. WATER CONSUMPTION AND WATER LOSS

1. Potable water source(s):

☒ ☐ Public System (Specify) City of Chehalis

☐ ☐ Private Well

☐ ☐ Surface Water

a. Water Right Permit Number: _____

b. Legal Description of Water Source

_____ $\frac{1}{4}$ S, _____ $\frac{1}{4}$ E, _____, Section, _____ TWN, _____ R

2. Potable water use

a. Indicate total water use _____

Gallons per day (average) _____

Gallons per day (maximum) _____

b. Is water metered?

☒ YES ☐ NO

SECTION E. WASTEWATER INFORMATION

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

Intake: Std meter

Effluent Std meter

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

Grab

3. Has the effluent been analyzed for any other parameters than those identified in question E.4.? ☐ YES
If yes, attach results and label as attachment E.4. This data must clearly show the date, method and location.
Ecology may require additional testing.

4. Provide measurements or range of measurements for treated wastewater prior to discharge to the POTW for an "X" in the left column. If you obtain the application from the internet, contact Ecology's regional office subset of these parameters is permissible. All analyses (except pH) must be conducted by a laboratory registered with Ecology (WAC 173-216-125). If this is an application for permit renewal, provide data for the last year for all parameters routinely measured. For parameters measured only for this application, place the values under "Maximum 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 (QI) table unless Ecology approves an alternate method or the method used produces measurable results in the s listed it as an EPA approved method in 40 CFR Part 136. If the Permittee uses an alternative method as all 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 th , 20 th edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
	BOD (5 day)	17.7	175	58	10	SM 5210 B	/2 mg/l
	COD					SM 5220 D	/10 mg/l
	Total suspended solids	7	72	47	10	SM 2540 D	/5 mg/l
	Fixed Dissolved Solids					SM 2540 E	
	Total dissolved solids					SM 2540 C	
	Conductivity (micromhos/cm)					SM 2510 B	
	Ammonia-N as N					SM 4500-NH ₃ C	/0.3 mg/L
	pH	7.1	8.2	7.6	10	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	
	Nitrate + nitrite-N as N					SM 4500-NO ₃ E	100 µg/L
	Total kjeldahl N as N					SM 4500-N _{org} 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
	Total Oil & grease	5	10	8	10	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 ₄ C/D	/200 µg/l
	Arsenic(total)	0.07	0.02	0.05	10	EPA 200.8	0.1/0.5 µg/l

X	Parameter	Measurement Values			Number of Analyses	Analytical Method Std. Methods 19 th , 20 th edition or EPA	Detection Limit/Quantitation Level
		Minimum	Maximum	Average			
X	Barium (total)					EPA 200.8	0.5/2 µg/l
X	Cadmium (total)	0.02	0.06	0.04	10	EPA 200.8	0.05/25 µg/l
X	Chromium (total)	0.02	0.05	0.03	10	EPA 200.8	0.2/1 µg/l
X	Copper (total)	0.02	0.09	0.03	10	EPA 200.8	0.4/2 µg/l
X	Lead (total)	0.02	0.06	0.03	10	EPA 200.8	0.1/5 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
X	Nickel (total)	0.05	0.03	0.03	10	EPA 200.8	0.1/0.5 µg/l
X	Selenium (total)	0.02	0.05	0.03	10	EPA 200.8	1/1 µg/l
X	Silver (total)	0.02	0.05	0.03	10	EPA 200.8	0.04/2 µg/l
X	Zinc (total)	0.12	0.44	0.25	10	EPA 200.8	0.5/2.5 µg/l
Cyanide		0.1	0.5	0.2			0.5 mg/L

6. Does this facility use any of the following chemicals as raw materials or produce them as part of the manufacturing process, or are they present in the wastewater? ☐ YES ☒ NO

(The number in the column next to the chemical name is the Chemical Abstract Service (CAS) reference number to aid in identifying the compound.)

If yes, specify how the chemical is used and the quantity used or produced:

METALS, CYANIDE & TOTAL PHENOLS			
Antimony, Total	7440-36-0	Nickel, Total	7440-02-0
Arsenic, Total	7440-38-2	Selenium, Total	7782-49-2
Beryllium, Total	7440-41-7	Silver, Total	7440-22-4
Cadmium, Total	7440-43-9	Thallium, Total	7440-28-0
Chromium (hex) dissolved	18540-29-9	Zinc, Total	7440-66-6
Chromium, Total	7440-47-3		
Copper, Total	7440-50-8	Cyanide, Total	57-12-5
Lead, Total	7439-92-1	Cyanide, Weak Acid Dissociable	
Mercury, Total	7439-97-6	Phenols, Total	

PESTICIDES			
Aldrin	309-00-2	Endrin	72-20-8
alpha-BHC	319-84-6	Endrin Aldehyde	7421-93-4
beta-BHC	319-85-7	Heptachlor	76-44-8
gamma-BHC	58-89-9	Heptachlor Epoxide	1024-57-3
delta-BHC	319-86-8	PCB-1242	53469-21-9
Chlordane	57-74-9	PCB-1254	11097-69-1
4,4'-DDT	50-29-3	PCB-1221	11104-28-2
4,4'-DDE	72-55-9	PCB-1232	11141-16-5
4,4' DDD	72-54-8	PCB-1248	12672-29-6
Dieldrin	60-57-1	PCB-1260	11096-82-5
alpha-Endosulfan	959-98-8	PCB-1016	12674-11-2
beta-Endosulfan	33213-65-9	Toxaphene	8001-35-2
Endosulfan Sulfate	1031-07-8		

VOLATILE COMPOUNDS			
Acrolein	107-02-8		
Acrylonitrile	107-13-1	1,1-Dichloroethylene	75-35-4
Benzene	71-43-2	1,2-Dichloropropane	78-87-5
Bromoform	75-25-2	1,3-dichloropropene (mixed isomers) (1,2-dichloropropylene)	542-75-6
Carbon tetrachloride	56-23-5	Ethylbenzene	100-41-4
Chlorobenzene	108-90-7	Methyl bromide (Bromomethane)	74-83-9
Chloroethane	75-00-3	Methyl chloride (Chloromethane)	74-87-3
2-Chloroethylvinyl Ether	110-75-8	Methylene chloride	75-09-2
Chloroform	67-66-3	1,1,2,2-Tetrachloroethane	79-34-5
Dibromochloromethane	124-48-1	Tetrachloroethylene	127-18-4
1,2-Dichlorobenzene	95-50-1	Toluene (108-88-3)	
1,3-Dichlorobenzene	(541-73-1)	1,2-Trans-Dichloroethylene (Ethylene dichloride)	156-60-5
1,4-Dichlorobenzene	106-46-7	1,1,1-Trichloroethane	71-55-6
Dichlorobromomethane	75-27-4	1,1,2-Trichloroethane	79-00-5
1,1-Dichloroethane	75-34-3	Trichloroethylene	79-01-6
1,2-Dichloroethane	107-06-2	Vinyl chloride	75-01-4

ACID COMPOUNDS			
2-Chlorophenol	95-57-8	4-nitrophenol	100-02-7
2,4-Dichlorophenol	120-83-2	Parachlorometa cresol (4-chloro-3-methylphenol)	59-50-7
2,4-Dimethylphenol	105-67-9	Pentachlorophenol	87-86-5
4,6-dinitro-o-cresol (2-methyl-4,6,-dinitrophenol)	534-52-1	Phenol	108-95-2
2,4 dinitrophenol	51-28-5	2,4,6-Trichlorophenol	88-06-2
2-Nitrophenol	88-75-5		

BASE/NEUTRAL COMPOUNDS (compounds in bold are Ecology PBTs)			
Acenaphthene	83-32-9	3,3-Dichlorobenzidine	91-94-1
Acenaphthylene	208-96-8	Diethyl phthalate	84-66-2
Anthracene	120-12-7	Dimethyl phthalate	131-11-3
Benzidine	92-87-5	Di-n-butyl phthalate)	84-74-2
Benzyl butyl phthalate	85-68-7	2,4-dinitrotoluene	121-14-2
Benzo(a)anthracene	56-55-3	2,6-dinitrotoluene	606-20-2
Benzo(b)fluoranthene (3,4-benzofluoranthene)	205-99-2	Di-n-octyl phthalate	117-84-0
Benzo(j)fluoranthene	205-82-3	1,2-Diphenylhydrazine (as <i>Azobenzene</i>)	122-66-7
Benzo(k)fluoranthene (11,12-benzofluoranthene)	207-08-9	Fluoranthene	206-44-0
Benzo(r,s,t)pentaphene	189-55-9	Fluorene	86-73-7
Benzo(a)pyrene	50-32-8	Hexachlorobenzene	118-74-1
Benzo(ghi)Perylene	191-24-2	Hexachlorobutadiene	87-68-3
Bis(2-chloroethoxy)methane	111-91-1	Hexachlorocyclopentadiene	77-47-4
Bis(2-chloroethyl)ether	111-44-4	Hexachloroethane	67-72-1
Bis(2-chloroisopropyl)ether	39638-32-9	Indeno(1,2,3-cd)Pyrene	193-39-5
Bis(2-ethylhexyl)phthalate	117-81-7	Isophorone	78-59-1
4-Bromophenyl phenyl ether	101-55-3	3-Methyl cholanthrene	56-49-5
2-Chloronaphthalene	91-58-7	Naphthalene	91-20-3
4-Chlorophenyl phenyl ether	7005-72-3	Nitrobenzene	98-95-3
Chrysene	218-01-9	N-Nitrosodimethylamine	62-75-9
Dibenzo (a,j)acridine	224-42-0	N-Nitrosodi-n-propylamine	621-64-7
Dibenzo (a,h)acridine	226-36-8	N-Nitrosodiphenylamine	86-30-6
Dibenzo(a-h)anthracene (1,2,5,6-dibenzanthracene)	53-70-3	Perylene	198-55-0
Dibenzo(a,e)pyrene	192-65-4	Phenanthrene	85-01-8
Dibenzo(a,h)pyrene	189-64-0	Pyrene	129-00-0
		1,2,4-Trichlorobenzene	120-82-1

7. Are any other pesticides, herbicides or fungicides used at this facility? ☐ YES ☒ NO

If yes, specify the material and quantity used:

8. 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 as Attachment E8):

9. Is the wastewater being discharged, or proposed for discharge, to the POTW
designated as a dangerous waste according to the procedures in Chapter 173-303 WAC?

☐ YES ☒ NO ☐ DON'T KNOW

10. If the answer to question 9 above is yes, how did the waste designate as a dangerous waste
(check appropriate box)?

For Listed and TCLP Characteristic Wastes only, also provide the Dangerous Waste Number(s).

Listed Waste ☐ Dangerous Waste Number(s) _____

Characteristic Wastes Dangerous Waste Number(s) _____

Ignitable ☐

Reactive ☐

Corrosive ☐

TCLP ☐

State Only Dangerous Wastes Dangerous Waste Number(s) _____

Toxicity ☐

Persistent ☐

For questions about waste designation under the *Dangerous Waste Regulations*, Chapter 173-303 WAC, contact Ecology's Hazardous Waste and Toxics Program at:

Northwest Regional Office - Bellevue	(425) 649-7000
Southwest Regional Office - Lacey	(360) 407-6300
Central Regional Office - Yakima	(509) 575-2490
Eastern Regional Office - Spokane	(509) 329-3400

SECTION F. SEWER INFORMATION

1. Is an inspection and sampling manhole or similar structure available on-site? ☒ YES ☐ NO
*If yes, attach a map or hand drawing of the facility that shows the location of these structures
(Label as attachment F1 or this may be combined with map in H8, if H8 is applicable to your
facility.)*

SECTION G. OTHER PERMITS

1. List all environmental control permits or approvals needed for this facility; for example, air emission permits.

Wastewater Permit

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 a Washington State Stormwater Industrial Stormwater General Permit? ☐ YES ☒ NO

If you answered no to both questions above, complete the following questions 2 through 5.

2. Does your facility discharge stormwater: *(Check all that apply)*

☐ To storm sewer system *(provide name of storm sewer system operator: _____)*

☐ Directly to any surface waters of Washington State *(e.g., river, lake, creek, estuary, ocean).*

Specify waterbody name(s) _____

☐ Indirectly to surface waters of Washington State *(i.e., flows over adjacent properties first).*

☐ To a Sanitary Sewer

☒ Directly to ground waters of Washington State via:

☐ Dry well

☐ Drainfield

☒ Other

3. 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 (please specify): _____

4. Material handling/management practices

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

☐

Solvents

☐

Hazardous Wastes

☐

Scrap Metal

☐

Acids or Alkalies

☒

Petroleum or Petrochemical Products

☐

Paints/Coatings

☐

Plating Products

☐

Woodtreating Products

☐

Pesticides

☐

Other *(please list)*: _____

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

☐

Oil/Water Separator

☐

Detention Facilities

☒

Containment

☐

Infiltration Basins

☒

Spill Prevention

☒

Operational BMPs

☐

Surface Leachate Collection

☐

Vegetation Management

☒

Overhead Coverage

☐

Other *(please list)*: _____

5. Attach a facility site 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 *(See example on page 16 of this application)*. Label this as attachment H.5.

SECTION I. OTHER INFORMATION

1. Describe liquid wastes or sludges being generated by your facility that are not disposed of in the waste stream(s) and how they are being disposed of. For each type of waste, provide type of waste and the name, address, and phone number of the hauler.

Wash Rack Soil, Mart Washer spent soil, used oil, used filters. parts washer solvent, oily rags

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

Wash rack soil is contained in 2 separate containment bins for drying and disposal, used waste oil is stored in bulk steel containment, designated waste is stored in a locked fence area.

3. Have you designated the wastes described above according to the applicable ☒ YES ☐ NO procedures of Dangerous Waste Regulations, Chapter 173-303 WAC?

SECTION J. CERTIFICATIONS

1. Approval by Publicly-Owned Treatment Works [required by WAC 173-216-070(4)(b)]

I approve of the discharge as described in this application. The applicant is:

(Please check the appropriate box below.)

☒ ☐ ☐ A Significant Industrial User (see Definitions at the end of this Section)

☐ ☐ ☐ A Categorical Industrial User

☐ ☐ ☐ Neither of the above

Name and location of sewer system to which this project will be tributary:

Treatment Works Owner: _____

Street: _____

City/State: _____

Zip: _____

Signature of Treatment Works Authority

Date

Title

Printed Name

2. Application review by Intermediate Sewer Owner at point of discharge (if applicable)

I hereby acknowledge that I have reviewed the application for discharge to this sewer system.

Name and location of sewer system to which this project will be tributary:

Sewer System Owner: _____

Street: _____

City/State: _____

Zip: _____

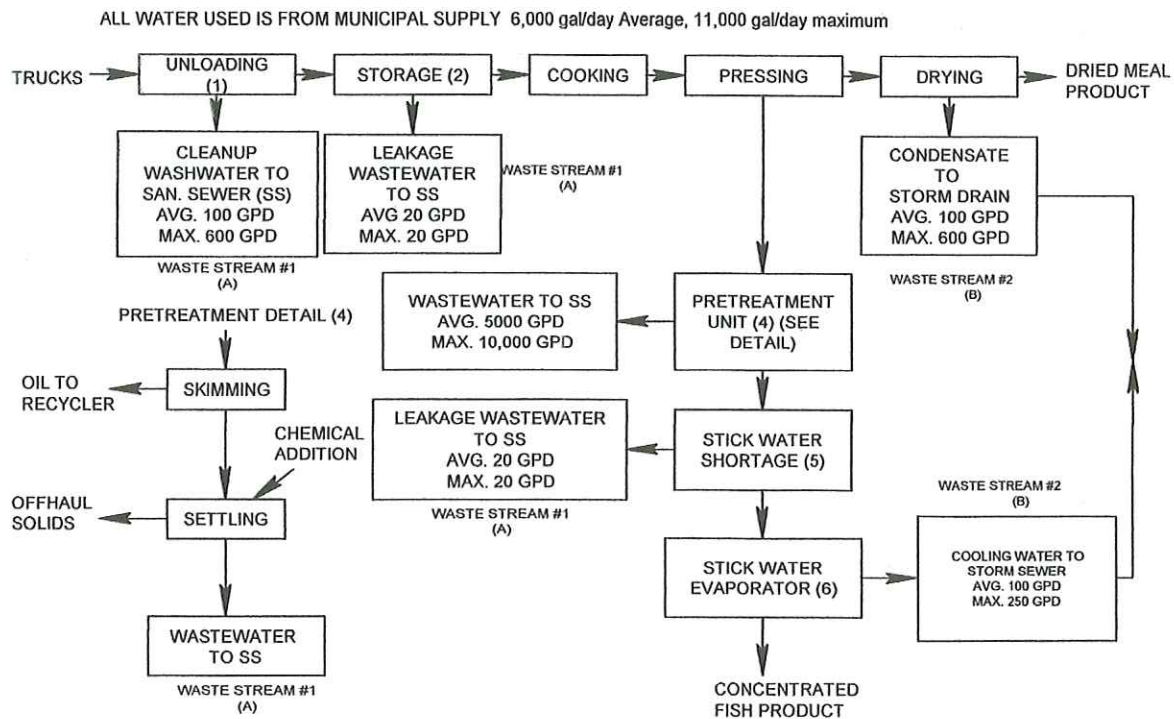
Signature of Sewer System Authority

Date

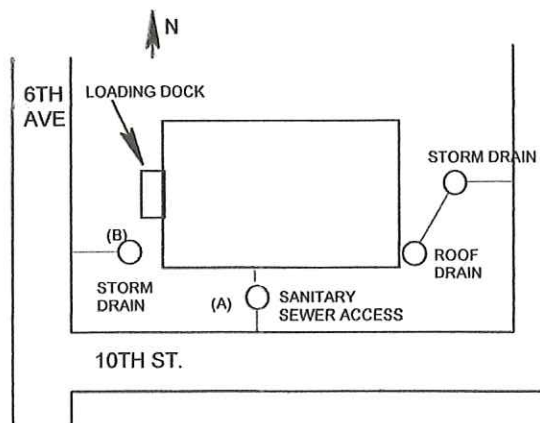
Title

Printed Name

Example 1 for application section C.2. (SCHEMATIC DIAGRAM)



Example 2 for application section F1 or H8 (FACILITY SITE MAP)



DEFINITIONS

Significant Industrial User (SIU)--

- 1) All industrial users subject to Categorical Pretreatment Standards under 40 CFR 403.6 and 40 CFR Chapter I, Subchapter N; and
- 2) Any other industrial user that: discharges an average of 25,000 gallons per day or more of process wastewater to the POTW (excluding sanitary, noncontact cooling, and boiler blow-down wastewater); contributes a process wastestream that makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the industrial user has a reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement (in accordance with 40 CFR 403.8(f)(6)).

Upon finding that the industrial user meeting the criteria in paragraph 2, above, has no reasonable potential for adversely affecting the POTW's operation or for violating any pretreatment standard or requirement, the Control Authority may at any time, on its own initiative or in response to a petition received from an industrial user or POTW, and in accordance with 40 CFR 403.8(f)(6), determine that such industrial user is not a significant industrial user.

Control Authority - means the Washington State Department of Ecology in the case of non-delegated POTWs or means the POTW in the case of delegated POTWs.

Categoric Industrial User (CIU): An industrial user subject to national categorical pretreatment standards promulgated by EPA (40 CFR 403.6 and 40 CFR parts 405-471).

Summary of Attachments That May be Required for This Application:

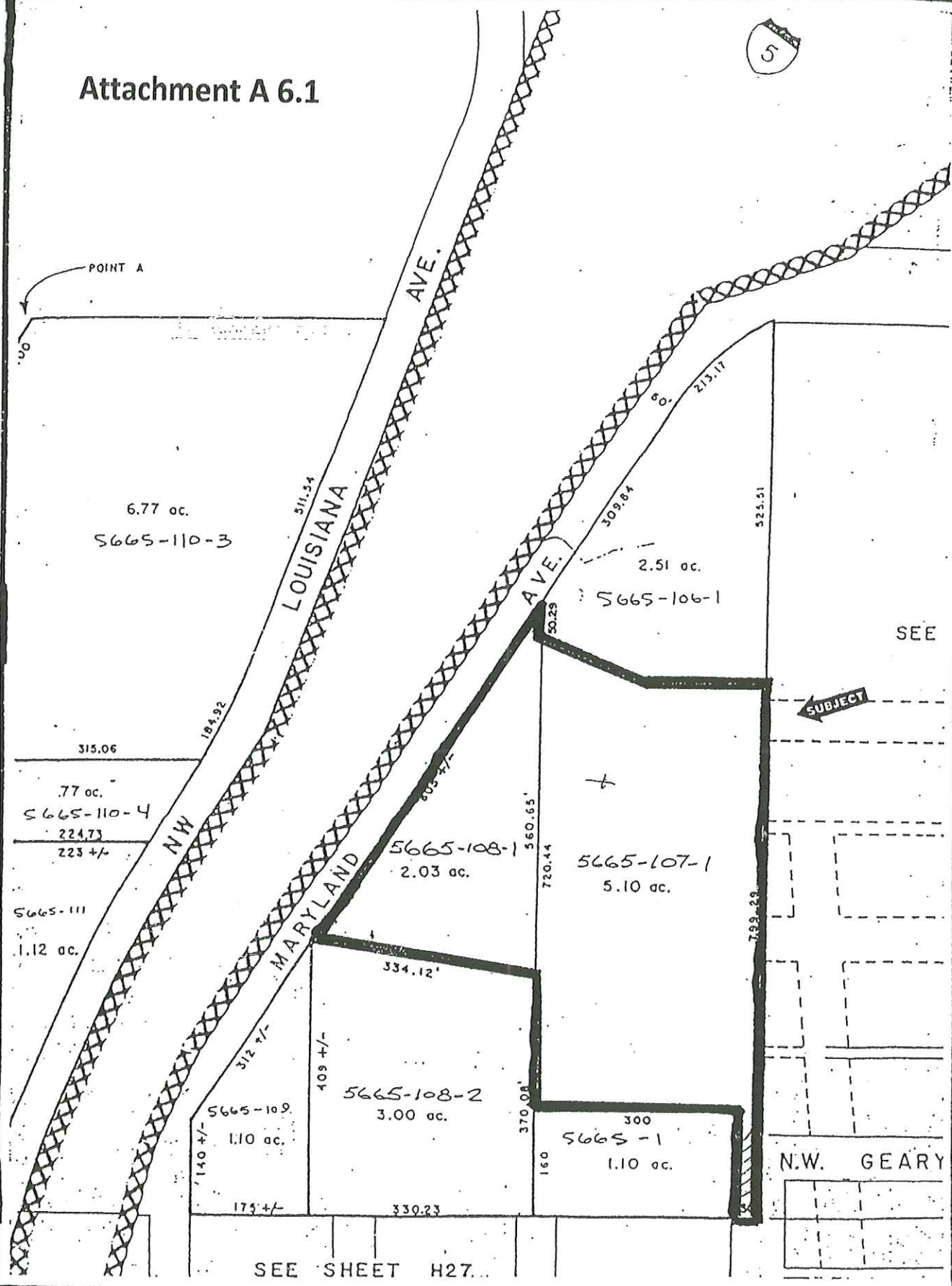
(Please check those attachments that are included)

- | | | | |
|--------------------------|--------------------------|------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | C.2. | Production schematic flow diagram and water balance |
| <input type="checkbox"/> | <input type="checkbox"/> | C.4. | Wastewater treatment improvements |
| <input type="checkbox"/> | <input type="checkbox"/> | C.7. | Additional incidental materials |
| <input type="checkbox"/> | <input type="checkbox"/> | E.8. | Additional results of effluent testing |
| <input type="checkbox"/> | <input type="checkbox"/> | F.1. | Facility site map |
| <input type="checkbox"/> | <input type="checkbox"/> | H.5. | 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.

Attachment A: Legal Description

Attachment A 6.1



SEE SHEET H27...

ATTACMENT A 6.2: LEGAL DESCRIPTION OF PARCELS FROM A 6.1

PARCEL A

THAT PORTION OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 30, TOWNSHIP 14 N., RANGE TWO WEST W. M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF GEARY STREET AND THE EAST LINE OF SAID SUBDIVISION;

THENCE WEST 30.00 FEET;

THENCE NORTH PARALLEL TO SAID EAST LINE 35.7 FEET;

THENCE WEST 300.0 FEET;

THENCE NORTH 770.0 FEET, MORE OR LESS, TO THE SOUTHEASTERLY LINE OF NW. MARYLAND AVE.;

THENCE NORTHEASTERLY ALONG SAID SOUTH EASTERLY LINE 530.0 FEET, MORE OR LESS, TO THE EAST LINE OF SAID SOUTHWEST 1/4 OF THE NORTHEAST 1/4;

THENCE SOUTH ALONG SAID EAST LINE 1202.2 FEET TO THE POINT OF BEGINNING;

EXCEPT THAT PORTION DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF GEARY STREET AND THE EAST LINE OF SAID SOUTHWEST 1/4 OF THE NORTH EAST 1/4;

THENCE NORTH 00 DEGREES 03 MINUTES 32 SECONDS EAST ALONG SAID SUBDIVISION LINE A DISTANCE OF 674.99 FEET TO THE TRUE POINT OF BEGINNING;

THENCE SOUTH 88 DEGREES 22 MINUTES 32 SECONDS WEST A DISTANCE OF 180.12 FEET;

THENCE NORTH 59 DEGREES 58 MINUTES 27 SECONDS WEST A DISTANCE OF 173.22 FEET;

THENCE NORTH 00 DEGREES 03 MINUTES 34 SECONDS EAST A DISTANCE OF 50.24 FEET TO THE EASTERLY LINE OF MARYLAND AVENUE;

THENCE NORTH 33 DEGREES 01 MINUTES 05 SECONDS EAST A DISTANCE OF 309.84 FEET TO A POINT OF CURVE TO THE RIGHT HAVING A RADIUS OF 352.00 FEET AND WHOSE RADIAL LINE BEARS SOUTH 56 DEGREES 58 MINUTES 55 SECONDS EAST;

THENCE NORTHERLY ALONG SAID CURVE THROUGH A CENTRAL ANGLE OF 34 DEGREES 41 MINUTES 53 SECONDS AND AN ARC DISTANCE OF 213.17 FEET;

THENCE SOUTH 00 DEGREES 03 MINUTES 32 SECONDS WEST A DISTANCE OF 525.51 FEET TO THE TRUE POINT OF BEGINNING;

PARCEL B:

THAT PORTION OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 30, TOWNSHIP 14 N., RANGE TWO WEST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE INTERSECTION OF THE NORTH LINE OF GEARY STREET WITH THE EAST LINE OF SAID SUBDIVISION;

THENCE WEST 30 FEET; THENCE SOUTH 124.3 FEET PARALLEL WITH SAID EAST LINE; THENCE EAST 30 FEET TO SAID EAST LINE

THENCE NORTH 124.3 FEET ALONG SAID EAST LINE TO THE POINT OF BEGINNING;

PARCEL C:

THAT PORTION OF THE WEST 1/2 OF THE EAST 1/2 OF THE SOUTHWEST 1/4 OF THE NORTHEAST 1/4 OF SECTION 30, TOWNSHIP 14 N., RANGE TWO WEST, W.M., DESCRIBED AS FOLLOWS:

BEGINNING AT THE SOUTHEAST CORNER OF SAID SUBDIVISION;

THENCE NORTH 89 DEGREES 56 MINUTES 10 SECONDS WEST ALONG THE SOUTH LINE OF SAID SUBDIVISION 330.11 FEET TO THE SOUTHWEST CORNER THEREOF;

THENCE NORTH 00 DEGREES 03 MINUTES 37 SECONDS EAST ALONG THE WEST LINE OF SAID SUBDIVISION 421.66 FEET TO THE SOUTHEASTERLY LINE OF NW. MARYLAND AVE. AND THE TRUE POINT OF BEGINNING;

THENCE SOUTH 81 DEGREES 03 MINUTES 17 SECONDS EAST 334.12 FEET TO THE EAST LINE OF SAID SUBDIVISION;

THENCE NORTH 00 DEGREES 03 MINUTES 34 SECONDS EAST ALONG SAID EAST LINE TO THE SOUTH EASTERLY MARGIN OF NW. MARYLAND AVE.;

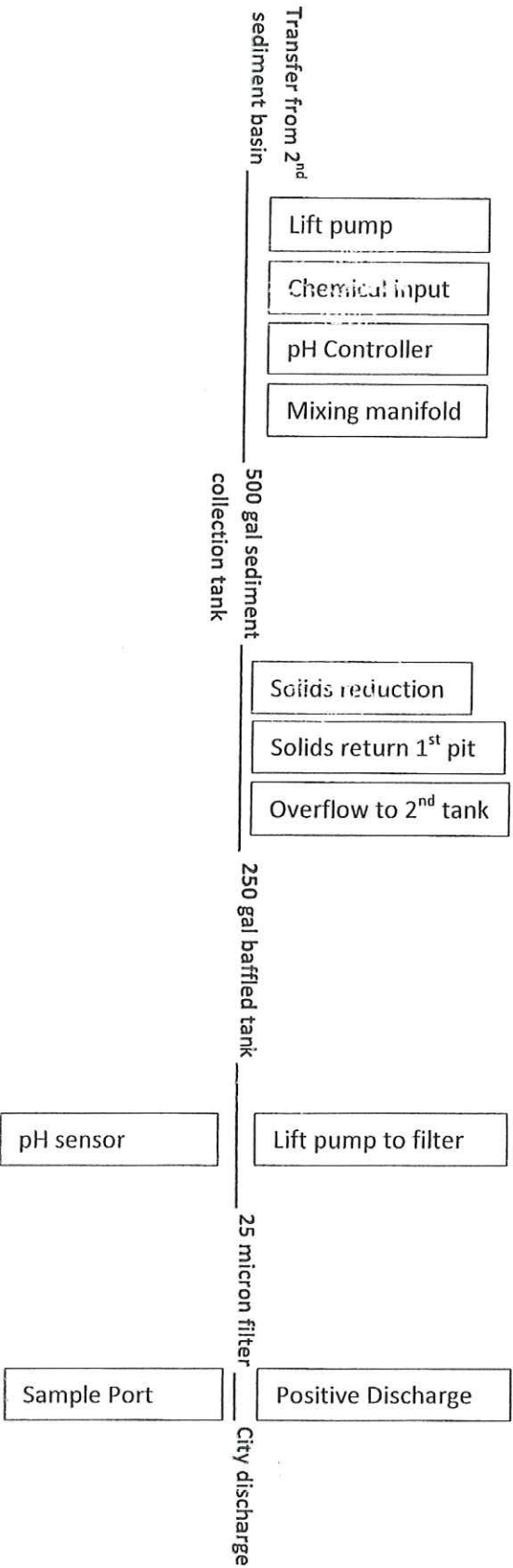
THENCE SOUTHWESTERLY ALONG SAID SOUTH EASTERLY MARGIN TO THE TRUE POINT OF BEGINNING, (BEING LOT 1 OF SHORT PLAT FOR THE CITY OF CHEHALIS, AS RECORDED AUGUST 13, 1985 UNDER RECORDING NO. 936928.)

SITUATE IN THE COUNTY OF LEWIS, STATE OF WASHINGTON.

Attachment C. Wash rack flow schematic for NC Machinery

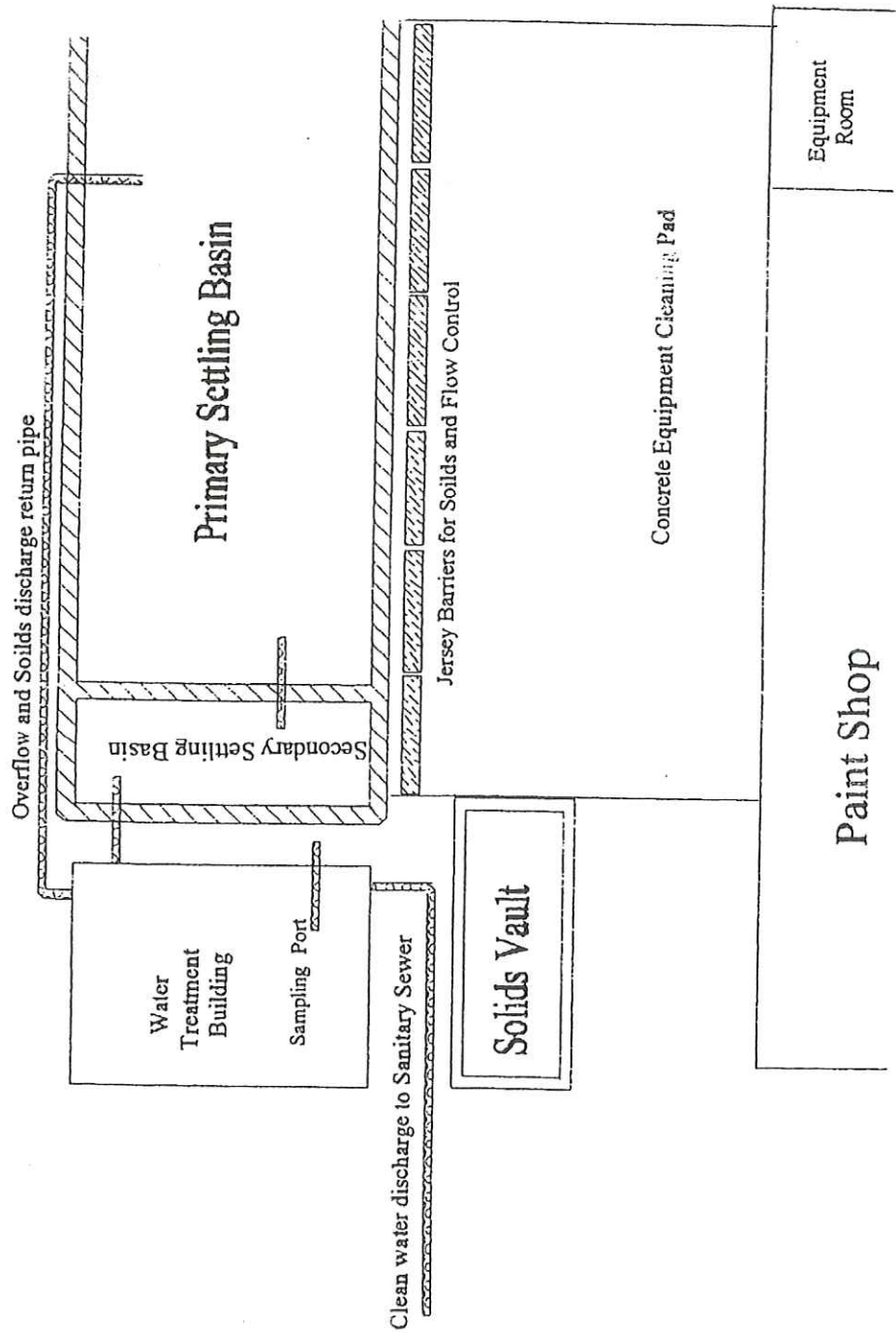
Attachment C. 1: Wastewater Treatment schematic for NC Machinery

Gravity feed from washrack to collection basin 1
Gravity feed from basin 1 to collection basin 2
Lift from basin 2 is positive flow to discharge @ 10 gpm
Operation: manual start –up, pH controlled/batch treatment
Chemical input: metered pump by demand / pH controlled
500 gal stabilization sediment tank/clarifiers to positive discharge to city



Attachment C. 2 Wash rack flow schematic for NC Machinery

Waste Stream 001; Equipment Wash Rack



Attachment D: Discharge Monitoring Report (DMR)

View DMR

Washington State Department of Ecology Discharge Monitoring Report (DMR) Page: 1 of 1

Permit Number: ST0006141
Facility County: Lewis
Monitoring Period: 07/01/2020 - 09/30/2020
Receiving Waterbody: Outfall: 001
Permittee: NC MACHINERY COMPANY
☐ No Discharge for this Monitoring Period

Find | Next

Sample Date	Flow Gallons/Day (gpd) Quarterly Filtered/Recorded	Total BOD Total Will grams/L (mg/L) Quarterly Grab	Solids (Residue) Total suspended (TSS) Will grams/L (mg/L) Quarterly Grab	Oil & Grease Total recoverable, FOG HEV Will grams/L (mg/L) Quarterly Grab	Temperature Measured Degrees F Quarterly Grab	Arsenic Total Will grams/L (mg/L) Quarterly Grab	Cadmium Total Will grams/L (mg/L) Quarterly Grab	Chromium Total Will grams/L (mg/L) Quarterly Grab	Copper Total Will grams/L (mg/L) Quarterly Grab	Cyanide Total Will grams/L (mg/L) Quarterly Grab	Lead Total Will grams/L (mg/L) Quarterly Grab	Nickel Total Will grams/L (mg/L) Quarterly Grab	Selenium Total Will grams/L (mg/L) Quarterly Grab	Silver Total Will grams/L (mg/L) Quarterly Grab	Zinc Total Will grams/L (mg/L) Quarterly Grab	pH Standard Units Quarterly Grab	
1																	
2																	
3																	
4																	
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	
13																	
14																	

Notes: If all of your data does not appear in the above table, please attach a separate sheet to this report.

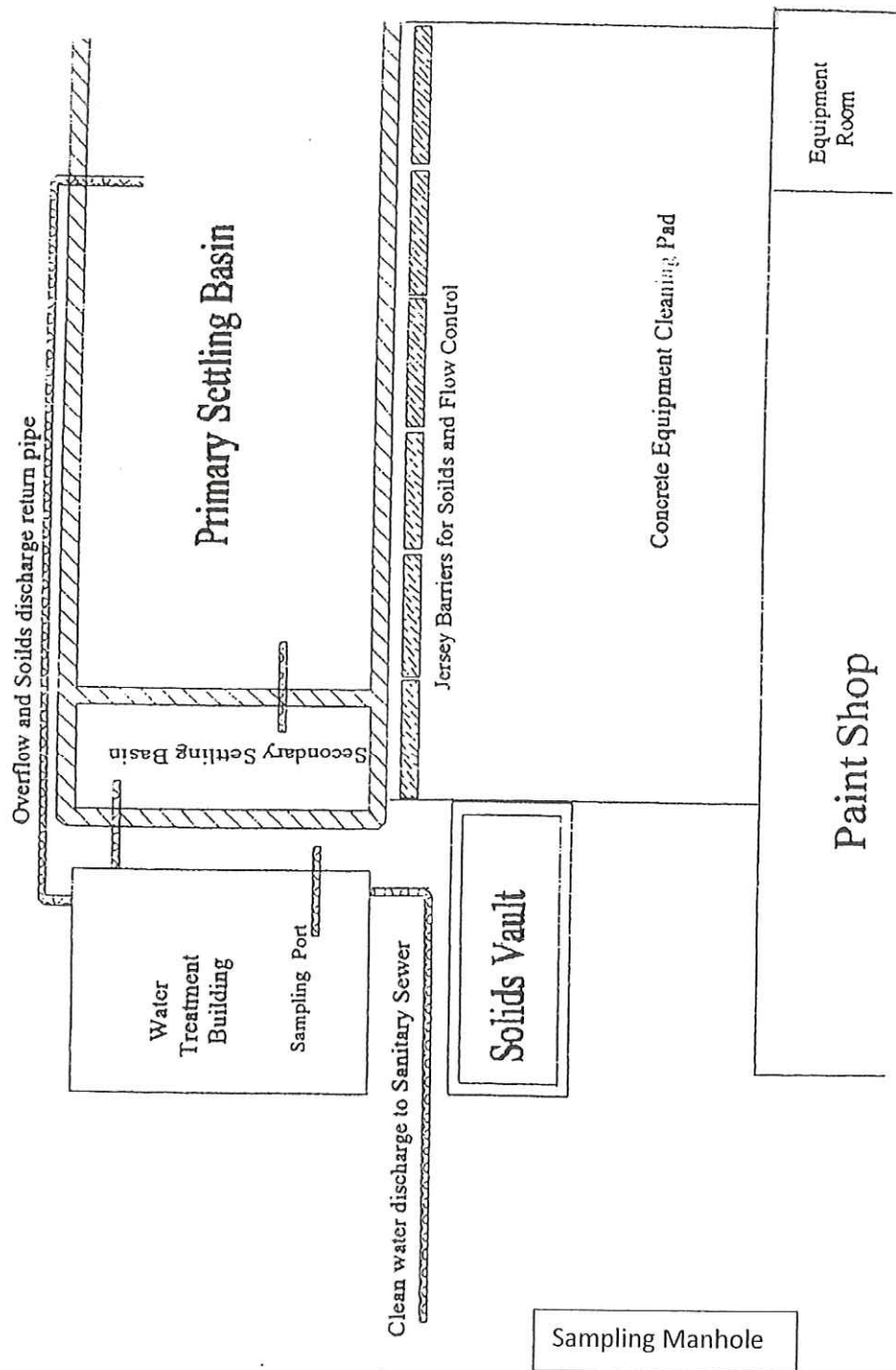
Note: If all of your data does not appear in the display above, please use the export option to view the report as pdf or excel document.

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[illegible]

F.1 Sampling Manhole Location

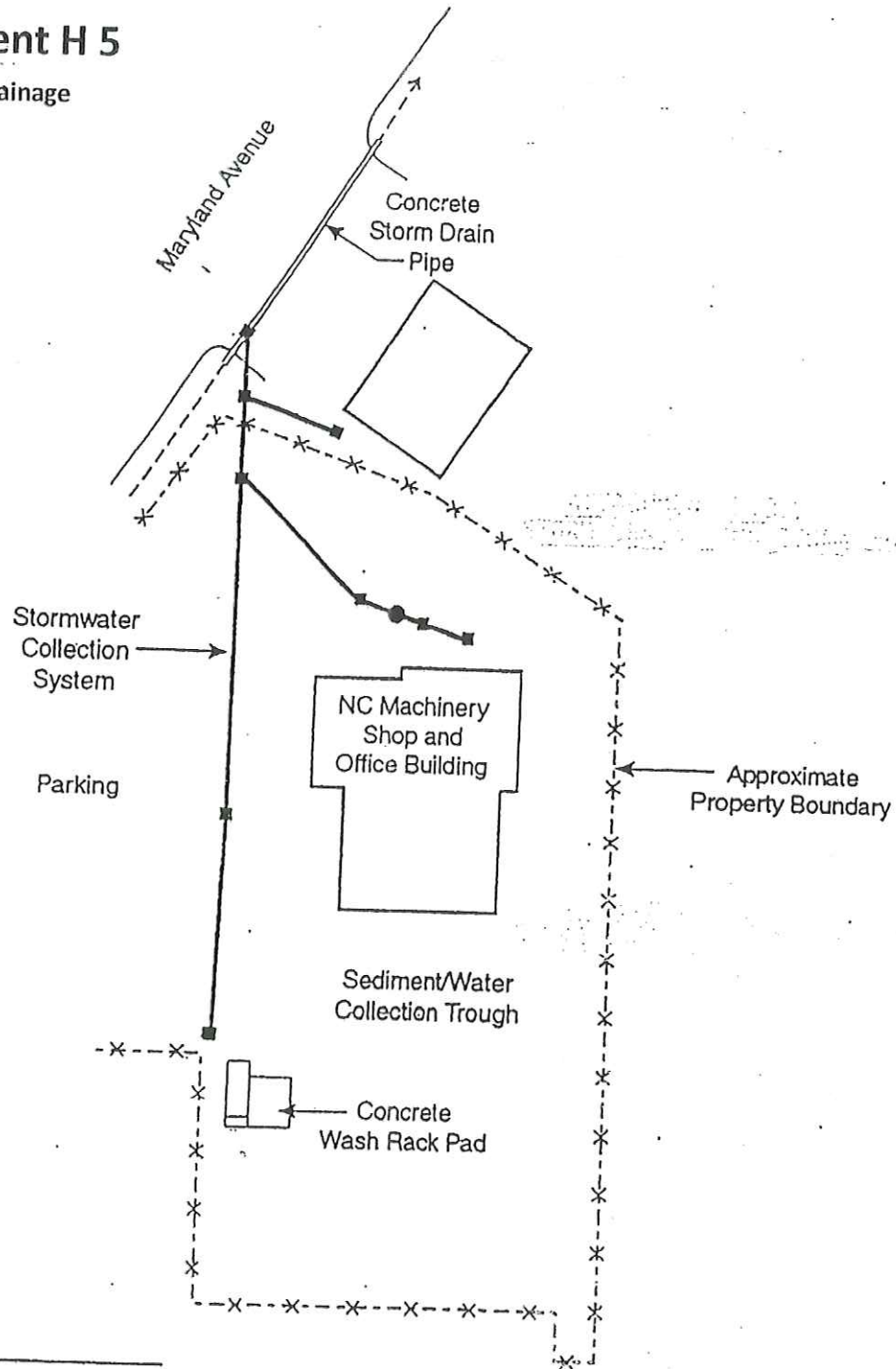
F.1 Sampling Manhole Location



H.5 Stormwater Drainage

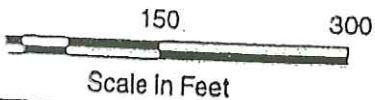
Attachment H 5

Stormwater Drainage



EGEND

- Catch Basin
- Sump/Pump Station



STORM WATER COLLECTION SYSTEM

C. 7: Selected MSDS

RECEIVED

NOV 02 2020

**WA State Department
of Ecology (SWRO)**

Zep Formula 15282

Seymour CV01388441 (brake cleaner)

Cat ELC Premix 50/50

Cat Hydraulic Oil SAE 30

Valspar Z887707 (paint /primer thinner)

Valspar 4C-4185/4293/4208 (Pigment)

Valspar 4C-4183/4191/4206 (Pigment)

Valspar 4C-5843 (Pigment)

Exxon Mobile (TDTO) 10 W oil

CalChem CC 2200

Sodium Hydroxide 50 % (5gal limit)

Hexagon Technologies (AM-26) copolymer



Zep, Inc.
1310 Seaboard Industrial Blvd.
Atlanta, GA 30318
1-877-I-BUY-ZEP (428-9937)
www.zep.com

Section 1. Chemical Product and Company Identification

Product name ZEP FORMULA 15282
Product use Recirculating Detergent
Product code 5348
Date of issue 09/06/12 **Supersedes** 04/20/05

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

DANGER!

CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. MAY BE HARMFUL IF SWALLOWED.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

*Hazard Determination System (HDS): Health, Flammability, Reactivity

3 0

Acute Effects

Routes of Entry

Inhalation.

- Eyes** Hazardous by the following route of exposure: of eye contact (corrosive). Eye contact can result in corneal damage or blindness. The amount of tissue damage depends on length of contact.
- Skin** Hazardous by the following route of exposure: of skin contact (corrosive). The amount of tissue damage depends on length of contact. Skin contact can produce inflammation and blistering.
- Inhalation** Inhalation of dust will produce irritation to gastro-intestinal or respiratory tract, characterized by burning, sneezing and coughing. Severe over-exposure can produce lung damage, choking, unconsciousness or death.
- Ingestion** Harmful if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects

Contains material which causes damage to the following organs: eye, lens or cornea.
Contains material which may cause damage to the following organs: gastrointestinal tract, upper respiratory tract, skin.

Carcinogenicity

Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
sodium carbonate	497-19-8	35-45
Sodium Metasilicate	6834-92-0	15-25
tetrapotassium pyrophosphate	7320-34-5	20-30

Section 4. First Aid Measures

- Eye Contact** Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin Contact** In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. If irritation persists, get medical attention.

Ingestion Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)



Flash Point Not applicable.

Flammable Limits Not applicable.

Flammability Not applicable.

Fire hazard

Fire-Fighting Procedures Wear special protective clothing and positive pressure, self-contained breathing apparatus.

Section 6. Accidental Release Measures

Spill Clean up Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure Controls/Personal Protection

Product name

Exposure limits

No exposure limit value known.

Personal Protective Equipment (PPE)

Eyes Splash goggles.

Body Neoprene gloves. Nitrile gloves. Natural rubber (latex) gloves



Respiratory Use with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Approved/certified respirator with appropriate particulate dust filters.

Section 9. Physical and Chemical Properties

Physical State Solid. [Moist solid.]

pH 11.8 to 12.3 [Conc. (% w/w): 1%]

Boiling Point Not applicable

Specific Gravity Not applicable.

Solubility 1.5 lb/gal

Color Tan.

Odor Mild. Aromatic. [Slight]

Vapor Pressure Not applicable.

Vapor Density Not available.

Evaporation Rate Not applicable.

VOC (Consumer) 0 (g/l). 0 lbs/gal (0 g/l)

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Reactive with oxidizing agents, acids.

Hazardous Polymerization Under normal conditions of storage and use, hazardous polymerization will not occur.

Hazardous Decomposition Products

Section 11. Toxicological Information

Acute Toxicity

tetrasodium pyrophosphate
sodium carbonate
disodium metasilicate

LD50 Oral
LD50 Oral
LD50 Oral

Rat 4 g/kg
Rat 4090 mg/kg
Rat 1153 mg/kg

Section 12. Ecological Information**Environmental Effects****Aquatic Ecotoxicity**

sodium carbonate	-	Acute EC50 242000 ug/L Fresh water	Algae - Diatom - Navicula seminulum	96 hours
	-	Acute LC50 176000 ug/L Fresh water	Crustaceans - Scud Order - Amphipoda	48 hours
	-	Acute LC50 265000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	-	Acute LC50 300000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - 3.88 cm - 0.96 g	96 hours
disodium metasilicate	-	Acute EC50 33.53 mg/L Fresh water	Crustaceans - Water flea - Ceriodaphnia dubia - Neonate - <24 hours	48 hours

Section 13. Disposal Considerations**Waste Information**

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Classification: Non-hazardous waste
Origin: RCRA waste.

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not regulated.	None.			
IMDG Class	Not regulated.	None			

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information**U.S. Federal Regulations**

SARA 313 toxic chemical notification and release reporting:

No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Cat® ELC™ (Extended Life Coolant) Premix 50/50

Product Use: Antifreeze/Coolant

Product Number(s): 16334, CPS216334, CPS226334

Company Identification

ChevronTexaco Global Lubricants
6001 Bollinger Canyon Road
San Ramon, CA 94583
United States of America

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

ChevronTexaco Emergency Information Center: Located in the USA. International collect calls accepted.
(800) 231-0623 or (510) 231-0623

Product Information

email : lubemsds@chevron.com

Product Information: 800-LUBE-TEK

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Water	7732-18-5	50 - 65 %weight
Ethylene Glycol	107-21-1	35 - 50 %weight
Potassium 2-ethylhexanoate	3164-85-0	1 - 5 %weight
Diethylene glycol	111-46-6	1 - 5 %weight

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- MAY BE HARMFUL OR FATAL IF SWALLOWED
- HARMFUL OR FATAL IF SWALLOWED
- CAUSES EYE IRRITATION
- CONTAINS MATERIAL THAT MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS BASED ON ANIMAL DATA
- POSSIBLE BIRTH DEFECT HAZARD - CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA
- MAY CAUSE DAMAGE TO:
 - KIDNEY

IMMEDIATE HEALTH EFFECTS

Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Toxic; may be harmful or fatal if swallowed.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Reproduction and Birth Defects: Contains material that may cause adverse reproductive effects based on animal data. Contains material that may be harmful to the developing fetus based on animal data.

Target Organs: Contains material that may cause damage to the following organ(s) following repeated ingestion based on animal data: Kidney

See Section 11 for additional information. Risk depends on duration and level of exposure.

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get medical attention if irritation persists.

Skin: To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

SECTION 5 FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 2 Flammability: 0 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: NA

Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: Dry Chemical, CO₂, AFFF Foam or alcohol resistant foam.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic

compounds will be evolved when this material undergoes combustion. Combustion may form oxides of Potassium.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: Do not get in eyes. Do not taste or swallow. Wash thoroughly after handling. Do not breathe vapor or fumes.

General Handling Information: Do not taste or swallow antifreeze or solution. Keep out of the reach of children and animals.

General Storage Information: Do not store in open or unlabeled containers.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not

CAT HYDRAULIC OIL (HYDO) SAE 30

MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CAT HYDRAULIC OIL (HYDO) SAE 30
SUPPLIER: EXXONMOBIL CORPORATION
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Health and Safety Emergency (call collect): 609-737-4411

24 - Hour Transportation Emergency:
CHEMTREC: 800-424-9300 202-483-7616
LUBES AND FUELS: 281-834-3296

Product and Technical Information:
Lubricants and Specialties: 800-662-4525 800-443-9966
Fuels Products: 800-947-9147
MSDS Fax on Demand: 613-228-1467
MSDS Internet Website: <http://emmsds.ihssolutions.com/>

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: SEVERE TREAT MIN. OILS & ADDITIVES

GLOBALLY REPORTABLE MSDS INGREDIENTS:

None.

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

Under normal conditions of use, this product is not considered hazardous according to regulatory guidelines (See section 15).

EMERGENCY OVERVIEW: Amber Liquid. Note: Pressurized mists may form a flammable mixture. DOT ERG No. : NA

POTENTIAL HEALTH EFFECTS: Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation.

For further health effects/toxicological data, see Section 11.

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area. INJECTION INJURY WARNING: If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

INHALATION: Not expected to be a problem. However, if respiratory irritation, dizziness, nausea, or unconsciousness occurs due to excessive vapor or mist exposure, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or mouth-to-mouth resuscitation.

INGESTION: Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing. Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Note: Pressurized mists may form a flammable mixture.

COMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of

(Section continued next page)

incomplete combustion.
Flash Point C(F): 264(508) (ASTM D-92).
Flammable Limits (approx.% vol.in air) - LEL: 0.9%, UEL: 7.0%
NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills/releases as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Response Center toll free number (800)424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

LAND SPILL: Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping or contain spilled material with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of adsorbed residues as directed in Section 13.

WATER SPILL: Confine the spill immediately with booms. Warn other ships in the vicinity. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. If permitted by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill procedures.

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: High pressure injection under the skin may occur due to the rupture of pressurized lines. Always seek medical attention. No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Keep containers closed when not in use. Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Do not store near heat, sparks, flame or strong oxidants.

SPECIAL PRECAUTIONS: Prevent small spills and leakages to avoid slip hazard.

EMPTY CONTAINER WARNING: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental

(Section continued next page)

***** SECTION 1: PRODUCT IDENTIFICATION

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-888-345-5732
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : Z887707, Z88708, Z88725
TRADE NAME : PAINT AND PRIMER THINNER
ISSUE DATE : 06-21-01 DATE PRINTED : 03-22-02

***** SECTION 2: HAZARDOUS INGREDIENTS

NAME	WT %	
COMMON(NA):EXEMPT MINERAL SPIRITS	40-45%	TLV TWA 100.00 PPM TLV STEL NOT ESTAB OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS:8052-41-3 CHEMICAL: STODDARD SOLVENT		
*COMMON(1):ETHYLBENZENE	<10%	TLV TWA 100.00 PPM TLV STEL 125.00 PPM OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS:100-41-4 CHEMICAL: BENZENE, ETHYL		
*COMMON(NA):XYLENE	<55%	TLV TWA 100.00 PPM TLV STEL 150.00 PPM OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS:1330-20-7 CHEMICAL: PHENYL,DIMETHYL		

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

(1) = THIS MATERIAL IS A CARCINOGEN PER IARC

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL
SUBSTANCE INVENTORY REQUIREMENTS.

***** SECTION 3: PHYSICAL DATA

BOILING POINT: 277 DEG F. (136 DEG C.)
VAPOR PRESSURE MM HG AT 90 DEG F. (32 DEG C.): 10.0
VAPOR DENSITY (AIR = 1.0): 4.8

SPECIFIC GRAVITY: 0.73
PERCENT VOLATILE BY VOLUME: 100.00
EVAPORATION RATE (BUTYL ACETATE = 1): 1.1
SOLUBILITY IN WATER: NO
APPEARANCE/ODOR: NORMAL FOR A COATINGS PRODUCT.
PH : N.AV
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.AV

.EJECT

V A L S P A R C O R P O R A T I O N
MATERIAL SAFETY DATA SHEET

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***** SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM DEG F : 78
FLASH POINT TCC/PM DEG C : 25
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 7.00
AUTO IGNITION - DEG F : N.AV DEG C : N.AV
SENSITIVITY TO IMPACT : NONE
SENSITIVITY TO STATIC DISCHARGE : N.AV

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:

FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:

NONE

***** SECTION 5: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:

IMMEDIATE EFFECTS (ACUTE):

HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION.

OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION, LIVER DAMAGE, KIDNEY DAMAGE.

DELAYED EFFECTS (CHRONIC):

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

CONTAINS ETHYLBENZENE, WHICH HAS BEEN DETERMINED BY NTP TO BE AN ANIMAL CARCINOGEN WITH NO KNOWN RELEVANCE TO HUMANS. IARC HAS

CLASSIFIED ETHYLBENZENE AS POSSIBLY CARCINOGENIC TO HUMANS (2B) ON THE BASIS OF SUFFICIENT EVIDENCE OF CARCINOGENICITY IN LABORATORY ANIMALS BUT INADEQUATE EVIDENCE FOR CANCER IN HUMANS.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.
SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.
INHALATION: IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR.
SWALLOWING: IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORPTION.

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MATERIAL SAFETY DATA SHEET

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***** SECTION 6: REACTIVITY DATA *****

THIS PRODUCT IS STABLE
CONDITIONS TO AVOID: NONE
INCOMPATIBILITY: STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON DIOXIDE/MONOXIDE

HAZARDOUS POLYMERIZATION: NONE

***** SECTION 7: SPILL OR LEAK PROCEDURES *****

VENTILATE AREA. AVOID BREATHING OF VAPORS. USE SELF-CONTAINED BREATHING APPARATUS OR AIRMASK FOR LARGE SPILLS IN A CONFINED AREA.
ELIMINATE IGNITION SOURCES.
REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS.
AVOID CONTACT WITH EYES.

WASTE DISPOSAL METHOD:
DISPOSE IN CHEMICAL DISPOSAL AREA OR IN A MANNER THAT COMPLIES WITH LOCAL, STATE, PROVINCIAL AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

***** SECTION 8: SPECIAL PROTECTION INFORMATION *****

RESPIRATORY PROTECTION:

***** SECTION 1: PRODUCT IDENTIFICATION

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-888-345-5732
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : AAY0500
TRADE NAME : HIWAY YELLOW PAINT HIGH GLOSS
REVISION DATE : 11-28-01 DATE PRINTED : 03-21-02

***** SECTION 2: HAZARDOUS INGREDIENTS

NAME	WT %	
COMMON (NA) : ETHYL 3-ETHOXYPROPIONATE	1-5%	TLV TWA NOT ESTAB TLV STEL NOT ESTAB
CAS: 763-69-9 CHEMICAL: PROPANOIC ACID, 3-ETHOXY- , ETHYL ESTER		OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND 50.00 PPM
COMMON (NA) : NAPHTHA	25-30%	TLV TWA 100.00 PPM TLV STEL NOT ESTAB
CAS: 64742-88-7 CHEMICAL: SOLVENT NAPHTHA (PETROLEUM), MEDIUM ALIPH.		OSHA PEL 300.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
*COMMON (NA) : TOLUENE	<10%	TLV TWA 50.00 (01) TLV STEL NOT ESTAB
CAS: 108-88-3 CHEMICAL: TOLUENE		OSHA PEL NOT ESTAB CEILING 300.00 PPM RECOMND NOT ESTAB
*COMMON (2) : ETHYLBENZENE	.1-1.0%	TLV TWA 100.00 PPM TLV STEL 125.00 PPM
CAS: 100-41-4 CHEMICAL: BENZENE, ETHYL		OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
COMMON (NA) : MINERAL SPIRITS	1-5%	TLV TWA 100.00 PPM TLV STEL NOT ESTAB
CAS: 64742-47-8 CHEMICAL: DISTILLATES (PETROLEUM), HYDROTREATED LIGHT		OSHA PEL 500.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB

COMMON(NA) : PROPRIETARY PIGMENT

CAS: TRADE SECRET

TLV TWA 10.00 MG/CU M
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND NOT ESTAB

.EJECT

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***** SECTION 2: HAZARDOUS INGREDIENTS

*****CONTINUED*****

COMMON(NA) : PROPRIETARY PIGMENT

CAS: TRADE SECRET

TLV TWA NOT ESTAB
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND NOT ESTAB

COMMON(NA) : VM&P NAPHTHA

10-15%

CAS: 64742-89-8 CHEMICAL: SOLVENT NAPHTHA (PETRO-
LEUM) LIGHT ALIPH.

TLV TWA 420.00 PPM
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND 300.00 PPM

***** SECTION 2: NON-HAZARDOUS INGREDIENTS

NAME

WT %

COMMON(3) : PROPRIETARY RESIN

CAS: TRADE SECRET

COMMON(NA) : PROPRIETARY PIGMENT

CAS: TRADE SECRET

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

- (1) = PPM SKIN
- (2) = THIS MATERIAL IS A CARCINOGEN PER IARC
- (3) = GLYCOL ETHER, SEE SECTION 5.

THE SPECIFIC CHEMICAL INDENTITY(S) OF A COMPONENT(S) IS (ARE) BEING WITHHELD
AS A TRADE SECRET UNDER 34 PENNSYLVANIA CODE, CHAPTER 317.

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL
SUBSTANCE INVENTORY REQUIREMENTS.

***** SECTION 3: PHYSICAL DATA

BOILING POINT: 230 DEG F. (110 DEG C.)
VAPOR PRESSURE MM HG AT 70 DEG F. (21 DEG C.): 28.0

VAPOR DENSITY (AIR = 1.0): 5.5
SPECIFIC GRAVITY: 0.98
PERCENT VOLATILE BY VOLUME: 61.27
EVAPORATION RATE (BUTYL ACETATE = 1): 2.0
SOLUBILITY IN WATER: NO
APPEARANCE/ODOR: NORMAL FOR A COATINGS PRODUCT.
PH : N.AV
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.AV

***** SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM DEG F : 52
FLASH POINT TCC/PM DEG C : 11
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 7.00
AUTO IGNITION - DEG F : N.AV DEG C : N.AV
SENSITIVITY TO IMPACT : NONE
SENSITIVITY TO STATIC DISCHARGE : N.AV

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MATERIAL SAFETY DATA SHEET 4C-4185, 4C-4293, 4C-4208

***** SECTION 4: FIRE AND EXPLOSION HAZARD

****CONTINUED****

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:

FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:

CONTAINS OXIDIZABLE MATERIALS. CONTAMINATED RAGS, WIPES, SAWDUST, ETC.
MAY CATCH FIRE SPONTANEOUSLY. STORE WASTE IN WATER-FILLED, CLOSED METAL
CONTAINERS UNTIL DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

***** SECTION 5: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:

IMMEDIATE EFFECTS (ACUTE):

CAN BE ABSORBED THROUGH THE SKIN.

HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RES-
PIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY
IRRITATION.

MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND
THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION, LIVER DAMAGE,
KIDNEY DAMAGE, CNS DEPRESSION, CORNEAL INJURY/EYE DAMAGE.

DELAYED EFFECTS (CHRONIC):

POSSIBLE BIRTH DEFECTS HAZARD. CONTAINS INGREDIENTS WHICH MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA.

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

CONTAINS ETHYLBENZENE, WHICH HAS BEEN DETERMINED BY NTP TO BE AN ANIMAL CARCINOGEN WITH NO KNOWN RELEVANCE TO HUMANS. IARC HAS CLASSIFIED ETHYLBENZENE AS POSSIBLY CARCINOGENIC TO HUMANS (2B) ON THE BASIS OF SUFFICIENT EVIDENCE OF CARCINOGENICITY IN LABORATORY ANIMALS BUT INADEQUATE EVIDENCE FOR CANCER IN HUMANS. CONTAINS INGREDIENTS WHICH MAY CAUSE LIVER DAMAGE, KIDNEY DAMAGE.

PROPOSITION 65 STATEMENT

WARNING: THIS PRODUCT CONTAINS A CHEMICAL KNOWN TO THE STATE OF CALIFORNIA TO CAUSE BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND GET MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.

CLOTHING: REMOVE CONTAMINATED CLOTHING AND SHOES. WASH CLOTHING BEFORE REUSE. THOROUGHLY CLEAN CONTAMINATED SHOES.

INHALATION: IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE TO FRESH AIR.

SWALLOWING: IF SWALLOWED, INDUCE VOMITING IMMEDIATELY AS DIRECTED BY MEDICAL PERSONNEL. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

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MATERIAL SAFETY DATA SHEET

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***** SECTION 5: HEALTH HAZARD DATA

*****CONTINUED*****

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORPTION.

***** SECTION 6: REACTIVITY DATA

THIS PRODUCT IS STABLE

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY:

ACIDS OR ALKALIES

HAZARDOUS DECOMPOSITION PRODUCTS:

CARBON DIOXIDE/MONOXIDE

HAZARDOUS POLYMERIZATION: NONE

***** SECTION 1: PRODUCT IDENTIFICATION

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-888-345-5732
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : AAA0903
TRADE NAME : BLACK PAINT MEDIUM GLOSS
REVISION DATE : 11-28-01 DATE PRINTED : 03-21-02

***** SECTION 2: HAZARDOUS INGREDIENTS

NAME

WT %

COMMON(NA) : ETHYL 3-ETHOXYPROPIONATE

1-5%

TLV TWA NOT ESTAB
TLV STEL NOT ESTABCAS:763-69-9 CHEMICAL: PROPANOIC ACID, 3-ETHOXY-
, ETHYL ESTEROSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND 50.00 PPM

COMMON(NA) : NAPHTHA

15-20%

TLV TWA 100.00 PPM
TLV STEL NOT ESTABCAS:64742-88-7 CHEMICAL: SOLVENT NAPHTHA
(PETROLEUM), MEDIUM ALIPH.OSHA PEL 300.00 PPM
CEILING NOT ESTAB
RECOMND NOT ESTAB

*COMMON(NA) : TOLUENE

< 5%

TLV TWA 50.00 (01)
TLV STEL NOT ESTAB

CAS:108-88-3 CHEMICAL: TOLUENE

OSHA PEL NOT ESTAB
CEILING 300.00 PPM
RECOMND NOT ESTAB

*COMMON(2) : ETHYLBENZENE

< 5%

TLV TWA 100.00 PPM
TLV STEL 125.00 PPM

CAS:100-41-4 CHEMICAL: BENZENE, ETHYL

OSHA PEL 100.00 PPM
CEILING NOT ESTAB
RECOMND NOT ESTAB

*COMMON(NA) : XYLENE

< 5%

TLV TWA 100.00 PPM
TLV STEL 150.00 PPM

CAS:1330-20-7 CHEMICAL: PHENYL, DIMETHYL

OSHA PEL 100.00 PPM
CEILING NOT ESTAB
RECOMND NOT ESTAB

COMMON (NA) : PROPRIETARY INERT

CAS : TRADE SECRET

TLV TWA 10.00 MG/CU M
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND NOT ESTAB

EJECT

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MATERIAL SAFETY DATA SHEET 4C-4183, 4C-4191, 4C-4206

***** SECTION 2: HAZARDOUS INGREDIENTS

****CONTINUED****

COMMON (3) : CARBON BLACK PIGMENT

1-5% TLV TWA 3.50 MG/CU M
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND NOT ESTAB

CAS : 1333-86-4 CHEMICAL : CARBON BLACK

*COMMON (NA) : ZINC OXIDE PIGMENT

< 5% TLV TWA 5.00 MG/CU M
TLV STEL 10.00 MG/CU M
OSHA PEL 5.00 MG/CU M
CEILING NOT ESTAB
RECOMND NOT ESTAB

CAS : 1314-13-2 CHEMICAL : ZINC OXIDE

*COMMON (NA) : N-BUTYL ALCOHOL

< 5% TLV TWA 50.00 PPM
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING 50.00 (01)
RECOMND NOT ESTAB

CAS : 71-36-3 CHEMICAL : 1-BUTANOL

COMMON (NA) : VM&P NAPHTHA

20-25% TLV TWA 420.00 PPM
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING NOT ESTAB
RECOMND 300.00 PPM

CAS : 64742-89-8 CHEMICAL : SOLVENT NAPHTHA (PETRO-
LEUM) LIGHT ALIPH.

COMMON (NA) : REGULAR MINERAL SPIRITS

1-5% TLV TWA 100.00 PPM
TLV STEL NOT ESTAB
OSHA PEL 500.00 PPM
CEILING NOT ESTAB
RECOMND NOT ESTAB

CAS : 64741-41-9 CHEMICAL : NAPHTHA (PETROLEUM),
HEAVY STRAIGHT RUN

***** SECTION 2: NON-HAZARDOUS INGREDIENTS

NAME

WT %

COMMON (4) : PROPRIETARY RESIN

CAS : TRADE SECRET

COMMON (NA) : PROPRIETARY RESIN

CAS:TRADE SECRET

COMMON(NA):PROPRIETARY INERT

CAS:TRADE SECRET

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

- (1) = PPM SKIN
- (2) = THIS MATERIAL IS A CARCINOGEN PER IARC
- (3) = THIS MATERIAL IS A CARCINOGEN PER NTP, OSHA
- (4) = GLYCOL ETHER, SEE SECTION 5.

THE SPECIFIC CHEMICAL INDENTITY(S) OF A COMPONENT(S) IS (ARE) BEING WITHHELD AS A TRADE SECRET UNDER 34 PENNSYLVANIA CODE, CHAPTER 317.

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL SUBSTANCE INVENTORY REQUIREMENTS.

.EJECT

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MATERIAL SAFETY DATA SHEET 4C-4183, 4C-4191, 4C-4206

***** SECTION 3: PHYSICAL DATA

BOILING POINT: 230 DEG F. (110 DEG C.)
VAPOR PRESSURE MM HG AT 70 DEG F. (21 DEG C.): 28.0
VAPOR DENSITY (AIR = 1.0): 5.5
SPECIFIC GRAVITY: 0.98
PERCENT VOLATILE BY VOLUME: 67.39
EVAPORATION RATE (BUTYL ACETATE = 1): 2.0
SOLUBILITY IN WATER: NO
APPEARANCE/ODOR: NORMAL FOR A COATINGS PRODUCT.
PH : N.AV
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.AV

***** SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM DEG F : 52
FLASH POINT TCC/PM DEG C : 11
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 7.00
AUTO IGNITION - DEG F : N.AV DEG C : N.AV
SENSITIVITY TO IMPACT : NONE
SENSITIVITY TO STATIC DISCHARGE : N.AV

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:

FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:

CONTAINS OXIDIZABLE MATERIALS. CONTAMINATED RAGS, WIPES, SAWDUST, ETC.
MAY CATCH FIRE SPONTANEOUSLY. STORE WASTE IN WATER-FILLED, CLOSED METAL
CONTAINERS UNTIL DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE REGULATIONS.

***** SECTION 5: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:

IMMEDIATE EFFECTS (ACUTE):

CAN BE ABSORBED THROUGH THE SKIN.

HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RES-
PIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY
IRRITATION.

MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

FRESHLY FORMED ZINC OXIDE FUME MAY CAUSE 'METAL FUME FEVER' WITH
FLU-LIKE SYMPTOMS OF FEVER AND CHILLS. SYMPTOMS USUALLY DISAPPEAR
WITHIN 24-48 HOURS.

OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND
THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION, LIVER DAMAGE,
KIDNEY DAMAGE, CNS DEPRESSION, CORNEAL INJURY/EYE DAMAGE.

DELAYED EFFECTS (CHRONIC):

PROLONGED EXPOSURE TO RESPIRABLE CRYSTALLINE QUARTZ (SILICA) MAY
CAUSE DELAYED (CHRONIC) LUNG INJURY (SILICOSIS)

POSSIBLE CANCER HAZARD. CONTAINS INGREDIENTS WHICH MAY CAUSE CANCER
BASED ON ANIMAL DATA. RISK OF CANCER DEPENDS UPON DURATION AND
LEVEL OF EXPOSURE.

POSSIBLE BIRTH DEFECTS HAZARD. CONTAINS INGREDIENTS WHICH MAY CAUSE
BIRTH DEFECTS BASED ON ANIMAL DATA.

.EJECT

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MATERIAL SAFETY DATA SHEET 4C-4181, 4C-4191, 4C-4206

***** SECTION 5: HEALTH HAZARD DATA

****CONTINUED****

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL
OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM
DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND
INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

CONTAINS ETHYLBENZENE, WHICH HAS BEEN DETERMINED BY NTP TO BE AN
ANIMAL CARCINOGEN WITH NO KNOWN RELEVANCE TO HUMANS. IARC HAS
CLASSIFIED ETHYLBENZENE AS POSSIBLY CARCINOGENIC TO HUMANS (2B) ON
THE BASIS OF SUFFICIENT EVIDENCE OF CARCINOGENICITY IN LABORATORY
ANIMALS BUT INADEQUATE EVIDENCE FOR CANCER IN HUMANS.

CONTAINS INGREDIENTS WHICH MAY CAUSE LIVER DAMAGE, KIDNEY DAMAGE,
HEARING LOSS.

PROPOSITION 65 STATEMENT

WARNING: THIS PRODUCT CONTAINS A CHEMICAL

V A L S P A R C O R P O R A T I O N
MATERIAL SAFETY DATA SHEET

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***** SECTION 1: PRODUCT IDENTIFICATION *****

MANUFACTURERS ADDRESS : 1101 THIRD STREET SOUTH, MINNEAPOLIS, MN 55415
MFG TELEPHONE NUMBER : (612) 332-7371
24 HR EMERGENCY PHONE NO : 1-888-345-5732
CHEMICAL NAME OR FAMILY : PAINT PRODUCT
FORMULA : Z885176
TRADE NAME : BLACK PAINT HIGH GLOSS
ISSUE DATE : 06-07-01 DATE PRINTED : 04-06-02

***** SECTION 2: HAZARDOUS INGREDIENTS *****

NAME	WT %	
COMMON (NA) : BUTANE	10-15%	TLV TWA 800.00 PPM TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND NOT ESTAB
CAS: 106-97-8 CHEMICAL: BUTANE		
COMMON (NA) : PROPANE	10-15%	TLV TWA 1000.00 PPM TLV STEL NOT ESTAB OSHA PEL 1000.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS: 74-98-6 CHEMICAL: PROPANE		
COMMON (1) : CARBON BLACK PIGMENT	.1-1.0%	TLV TWA 3.50 MG/CU M TLV STEL NOT ESTAB OSHA PEL NOT ESTAB CEILING NOT ESTAB RECOMND NOT ESTAB
CAS: 1333-86-4 CHEMICAL: CARBON BLACK		
COMMON (NA) : DIMETHYL KETONE	20-25%	TLV TWA 750.00 PPM TLV STEL NOT ESTAB OSHA PEL 250.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS: 67-64-1 CHEMICAL: 2-PROPANONE		
*COMMON (2) : ETHYLBENZENE	<10%	TLV TWA 100.00 PPM TLV STEL 125.00 PPM OSHA PEL 100.00 PPM CEILING NOT ESTAB RECOMND NOT ESTAB
CAS: 100-41-4 CHEMICAL: BENZENE, ETHYL		

*COMMON (NA) : XYLENE

<15% TLV TWA 100.00 PPM
TLV STEL 150.00 PPM
OSHA PEL 100.00 PPM
CEILING NOT ESTAB
RECOMND NOT ESTAB

CAS:1330-20-7 CHEMICAL: PHENYL,DIMETHYL

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***** SECTION 2: HAZARDOUS INGREDIENTS

*****CONTINUED*****

*COMMON (NA) : TOLUENE

<15% TLV TWA 50.00 (03)
TLV STEL NOT ESTAB
OSHA PEL NOT ESTAB
CEILING 300.00 PPM
RECOMND NOT ESTAB

CAS:108-88-3 CHEMICAL: TOLUENE

***** SECTION 2:NON-HAZARDOUS INGREDIENTS

NAME WT %

COMMON (NA) :NON-HAZARDOUS MATERIAL 15-20%
CAS: CHEMICAL: TRADE SECRET

CHEMICALS NOTED WITH A (*) ARE REPORTABLE UNDER SECTION 313 OF SARA TITLE III

- (1) = THIS MATERIAL IS A CARCINOGEN PER NTP, OSHA
(2) = THIS MATERIAL IS A CARCINOGEN PER IARC
(3) = PPM SKIN

ALL COMPONENTS OF THIS PRODUCT ARE IN COMPLIANCE WITH U.S. TSCA CHEMICAL
SUBSTANCE INVENTORY REQUIREMENTS.

***** SECTION 3: PHYSICAL DATA

BOILING POINT: 133 DEG F. (56 DEG C.)
VAPOR PRESSURE MM HG AT 68 DEG F. (20 DEG C.): 182.0
VAPOR DENSITY (AIR = 1.0): 3.7
SPECIFIC GRAVITY: 0.74
PERCENT VOLATILE BY VOLUME: 87.00
EVAPORATION RATE (BUTYL ACETATE = 1): 5.6
SOLUBILITY IN WATER: NO
APPEARANCE/ODOR: NORMAL FOR A COATINGS PRODUCT.
PH : N.AV
COEFFICIENT OF WATER/OIL DISTRIBUTION: N.AV

***** SECTION 4: FIRE AND EXPLOSION HAZARD

FLASH POINT TCC/PM DEG F : -25

FLASH POINT TCC/PM DEG C : -31
LOWER EXPLOSIVE LIMIT : 1.00
UPPER EXPLOSIVE LIMIT : 13.00
AUTO IGNITION - DEG F : N.AV DEG C : N.AV
SENSITIVITY TO IMPACT : NONE
SENSITIVITY TO STATIC DISCHARGE : N.AV

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL, FOAM, AND/OR WATER FOG.

SPECIAL FIRE FIGHTING PROCEDURES:

FIRE FIGHTERS MUST WEAR SELF CONTAINED BREATHING APPARATUS OR AIR MASKS.
CONTAINERS EXPOSED TO FIRE SHOULD BE KEPT COOL WITH WATER SPRAY.

UNUSUAL FIRE AND EXPLOSIVE HAZARDS:

NONE

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***** SECTION 5: HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE: NOT REQUIRED FOR MIXTURE.

EFFECTS OF OVEREXPOSURE:

IMMEDIATE EFFECTS (ACUTE):

HARMFUL IF INHALED. MAY AFFECT THE BRAIN, NERVOUS SYSTEM OR RESPIRATORY SYSTEM, CAUSING DIZZINESS, HEADACHE, NAUSEA OR RESPIRATORY IRRITATION.

OVEREXPOSURE TO INGREDIENTS IN THIS PRODUCT MAY CAUSE NOSE AND THROAT IRRITATION, EYE IRRITATION, SKIN IRRITATION, LIVER DAMAGE, KIDNEY DAMAGE, CNS DEPRESSION, RESPIRATORY TRACT IRRITATION, MUCOUS MEMBRANE IRRITATION, CORNEAL INJURY/EYE DAMAGE.

DELAYED EFFECTS (CHRONIC):

POSSIBLE CANCER HAZARD. CONTAINS INGREDIENTS WHICH MAY CAUSE CANCER BASED ON ANIMAL DATA. RISK OF CANCER DEPENDS UPON DURATION AND LEVEL OF EXPOSURE.

POSSIBLE BIRTH DEFECTS HAZARD. CONTAINS INGREDIENTS WHICH MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA.

NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

CONTAINS ETHYLBENZENE, WHICH HAS BEEN DETERMINED BY NTP TO BE AN ANIMAL CARCINOGEN WITH NO KNOWN RELEVANCE TO HUMANS. IARC HAS CLASSIFIED ETHYLBENZENE AS POSSIBLY CARCINOGENIC TO HUMANS (2B) ON THE BASIS OF SUFFICIENT EVIDENCE OF CARCINOGENICITY IN LABORATORY ANIMALS BUT INADEQUATE EVIDENCE FOR CANCER IN HUMANS.

CONTAINS INGREDIENTS WHICH MAY CAUSE LIVER DAMAGE, KIDNEY DAMAGE.

PROPOSITION 65 STATEMENT

WARNING: THIS PRODUCT CONTAINS A CHEMICAL
KNOWN TO THE STATE OF CALIFORNIA TO CAUSE
BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE - ANY
RESPIRATORY OR SKIN CONDITION.

EMERGENCY AND FIRST AID PROCEDURES:

EYE CONTACT: FLUSH IMMEDIATELY WITH PLENTY OF WATER FOR AT LEAST 15
MINUTES AND GET MEDICAL ATTENTION.

SKIN CONTACT: WASH THOROUGHLY WITH SOAP AND WATER.

INHALATION: IF AFFECTED BY INHALATION OF VAPOR OR SPRAY MIST, REMOVE
TO FRESH AIR.

SWALLOWING: IF SWALLOWED, DO NOT INDUCE VOMITING. GIVE LARGE QUANTITIES
OF WATER. IF AVAILABLE, GIVE SEVERAL GLASSES OF MILK. NEVER
GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL
ATTENTION IMMEDIATELY.

POSSIBLE ROUTES OF ENTRY: INHALATION, INGESTION, SKIN ABSORPTION.

***** SECTION 6: REACTIVITY DATA

THIS PRODUCT IS STABLE
CONDITIONS TO AVOID: NONE
INCOMPATIBILITY: STRONG OXIDIZERS

HAZARDOUS DECOMPOSITION PRODUCTS:
CARBON DIOXIDE/MONOXIDE

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***** SECTION 6: REACTIVITY DATA

****CONTINUED****

HAZARDOUS POLYMERIZATION: NONE

***** SECTION 7: SPILL OR LEAK PROCEDURES

VENTILATE AREA. AVOID BREATHING OF VAPORS. USE SELF-CONTAINED
BREATHING APPARATUS OR AIRMASK FOR LARGE SPILLS IN A CONFINED AREA.
ELIMINATE IGNITION SOURCES.
REMOVE WITH INERT ABSORBENT AND NON-SPARKING TOOLS.
AVOID CONTACT WITH EYES.

WASTE DISPOSAL METHOD:

DISPOSE IN CHEMICAL DISPOSAL AREA OR IN A MANNER THAT COMPLIES WITH LOCAL,
STATE, PROVINCIAL AND FEDERAL REGULATIONS. DO NOT INCINERATE CLOSED CONTAINERS.

***** SECTION 8: SPECIAL PROTECTION INFORMATION *****

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/11/2001

Reviewed on 03/29/2000

1 Identification of substance

Product details

Trade name: **BRAKE CLEANER**

Product code: CV01388441

Manufacturer/Supplier:
SEYMOUR OF SYCAMORE
917 Crosby Avenue
Sycamore, IL 60178



+1 815-895-9101

Information department: Health & Safety Department

Emergency information:

CHEMTREC 1 800 255 3924

For medical emergencies, call the Rocky Mountain
Poison Center 1-800-458-5924 or 1-303-893-1322,

2 Composition/Data on components

Chemical characterization

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous components:

67-64-1	acetone	52.4238%
108-88-3	toluene	30.4131%
74-98-6	propane	9.4449%
106-97-8	butane	5.547%
1330-20-7	xylene (mix)	1.4972%

3 Hazards identification

Hazard description:



Harmful
Extremely flammable

Information pertaining to particular dangers for man and environment:

Extremely flammable.

Harmful by inhalation.

Irritating to eyes.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Contains 100 mass percent inflammable materials.

Keep out of the reach of children.

Classification system:

The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 4
Reactivity = 3

HMIS-ratings (scale 0 - 4)

HEALTH	1
FIRE	3
REACTIVITY	3

Health = 1
Fire = 3
Reactivity = 3

4 First aid measures

General information:

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

(Contd. on page 2)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/11/2001

Reviewed on 03/29/2000

Trade name: BRAKE CLEANER

(Contd. of page 1)

After inhalation:

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact: Generally the product does not irritate the skin.

After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing: If symptoms persist consult doctor.

5 Fire fighting measures

Suitable extinguishing agents: CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents:

Water

Water with full jet

Protective equipment: Mount respiratory protective device.

6 Accidental release measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Do not allow product to reach sewage system or any water course.

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

Measures for cleaning/collecting:

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

7 Handling and storage

Handling:**Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

Do not spray on a naked flame or any incandescent material.

Storage:**Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurized containers.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Keep receptacle tightly sealed.

Do not gas tight seal receptacle.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

Class according to regulation on flammable liquids: Void

8 Exposure controls and personal protection

Additional information about design of technical systems: No further data; see item 7.

Components with limit values that require monitoring at the workplace:**67-64-1 acetone**

ACGIH TLV Short-term value: 1782 mg/m³, 750 ppm

Long-term value: 1188 mg/m³, 500 ppm

BEI

NIOSH REL 590 mg/m³, 250 ppm

OSHA PEL 2400 mg/m³, 1000 ppm

(Contd. on page 3)

USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/11/2001

Reviewed on 03/29/2000

Trade name: BRAKE CLEANER

(Contd. of page 2)

108-88-3 toluene	
ACGIH TLV	188 mg/m ³ , 50 ppm Skin; BEI
NIOSH REL	Short-term value: 560 mg/m ³ , 150 ppm Long-term value: 375 mg/m ³ , 100 ppm
OSHA PEL	Short-term value: C 300; 500* ppm Long-term value: 200 ppm *10-min peak per 8-hr shift
74-98-6 propane	
ACGIH TLV	4508 mg/m ³ , 2500 ppm
NIOSH REL	1800 mg/m ³ , 1000 ppm
OSHA PEL	1800 mg/m ³ , 1000 ppm
106-97-8 butane	
ACGIH TLV	1900 mg/m ³ , 800 ppm
NIOSH REL	1900 mg/m ³ , 800 ppm
1330-20-7 xylene (mix)	
ACGIH TLV	Short-term value: 651 mg/m ³ , 150 ppm Long-term value: 434 mg/m ³ , 100 ppm BEI
NIOSH REL	Short-term value: 655 mg/m ³ , 150 ppm Long-term value: 435 mg/m ³ , 100 ppm (o-, m-, & p-isomers)
OSHA PEL	435 mg/m ³ , 100 ppm

Additional information: The lists that were valid during the creation were used as basis.

Personal protective equipment:

General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protection of hands: Not required.

Eye protection:



Tightly sealed goggles

9 Physical and chemical properties

Form:	Aerosol
Color:	According to product specification
Odor:	Characteristic
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	-44°C (-47°F)
Flash point:	-19°C (-2°F)
Ignition temperature:	365.0°C (689°F)
Auto igniting:	Product is not selfigniting.
Danger of explosion:	Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	13.0 Vol %
Vapor pressure at 20°C (68°F):	
233.0 hPa	
Density at 20°C (68°F):	
0.888 g/cm ³	

(Contd. on page 4)
USA

Material Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 01/11/2001

Reviewed on 03/29/2000

Trade name: BRAKE CLEANER

(Contd. of page 3)

Solubility in / Miscibility with Water: Not miscible or difficult to mix.

Solvent content:

Organic solvents: 100.0 %

10 Stability and reactivity

Thermal decomposition / conditions to be avoided:
 No decomposition if used according to specifications.
Dangerous reactions No dangerous reactions known.
Dangerous products of decomposition: No dangerous decomposition products known.

11 Toxicological information

Acute toxicity:

LD/Lc50 values that are relevant for classification:

108-88-3 toluene

Oral	LD50	5000 mg/kg (rat)
Dermal	LD50	12124 mg/kg (rab)
Inhalative	LC50/4 h	5320 mg/l (mus)

Primary irritant effect:

on the skin: No irritant effect.

on the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful.

Irritant.

12 Ecological information

General notes:

Water hazard class 2 (Self-assessment): hazardous for water

Do not allow product to reach ground water, water course or sewage system.

Danger to drinking water if even small quantities leak into the ground.

13 Disposal considerations

DISPOSAL METHOD: Dispose of in accordance with local, state, and federal regulations. Do not puncture, incinerate, or compact. Empty containers must be handled with care due to product residue. Do not heat or cut empty containers with electric or gas torches.

Product:

Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

14 Transport information

DOT regulations:



Hazard class:

Identification number:

Packing group:

CONSUMER COMMODITY ORM-D

N/A

(Contd. on page 5)
USA

Material Safety Data Sheet

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Cat® ELC™ (Extended Life Coolant) Premix 50/50

Product Use: Antifreeze/Coolant

Product Number(s): 16334, CPS216334, CPS226334

Company Identification

ChevronTexaco Global Lubricants

6001 Bollinger Canyon Road

San Ramon, CA 94583

United States of America

Transportation Emergency Response

CHEMTREC: (800) 424-9300 or (703) 527-3887

Health Emergency

ChevronTexaco Emergency Information Center: Located in the USA. International collect calls accepted.

(800) 231-0623 or (510) 231-0623

Product Information

email : lubemsds@chevron.com

Product Information: 800-LUBE-TEK

SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

COMPONENTS	CAS NUMBER	AMOUNT
Water	7732-18-5	50 - 65 %weight
Ethylene Glycol	107-21-1	35 - 50 %weight
Potassium 2-ethylhexanoate	3164-85-0	1 - 5 %weight
Diethylene glycol	111-46-6	1 - 5 %weight

SECTION 3 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

- MAY BE HARMFUL OR FATAL IF SWALLOWED
- HARMFUL OR FATAL IF SWALLOWED
- CAUSES EYE IRRITATION
- CONTAINS MATERIAL THAT MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS BASED ON ANIMAL DATA
- POSSIBLE BIRTH DEFECT HAZARD - CONTAINS MATERIAL THAT MAY CAUSE BIRTH DEFECTS BASED ON ANIMAL DATA
- MAY CAUSE DAMAGE TO:
- KIDNEY

IMMEDIATE HEALTH EFFECTS

Eye: Contact with the eyes causes irritation. Symptoms may include pain, tearing, reddening, swelling and impaired vision.

Skin: Contact with the skin is not expected to cause prolonged or significant irritation. Not expected to be harmful to internal organs if absorbed through the skin.

Ingestion: Toxic; may be harmful or fatal if swallowed.

Inhalation: The vapor or fumes from this material may cause respiratory irritation. Symptoms of respiratory irritation may include coughing and difficulty breathing. Breathing this material at concentrations above the recommended exposure limits may cause central nervous system effects. Central nervous system effects may include headache, dizziness, nausea, vomiting, weakness, loss of coordination, blurred vision, drowsiness, confusion, or disorientation. At extreme exposures, central nervous system effects may include respiratory depression, tremors or convulsions, loss of consciousness, coma or death.

DELAYED OR OTHER HEALTH EFFECTS:

Reproduction and Birth Defects: Contains material that may cause adverse reproductive effects based on animal data. Contains material that may be harmful to the developing fetus based on animal data.

Target Organs: Contains material that may cause damage to the following organ(s) following repeated ingestion based on animal data: Kidney

See Section 11 for additional information. Risk depends on duration and level of exposure.

SECTION 4 FIRST AID MEASURES

Eye: Flush eyes with water immediately while holding the eyelids open. Remove contact lenses, if worn, after initial flushing, and continue flushing for at least 15 minutes. Get medical attention if irritation persists.

Skin: To remove the material from skin, use soap and water. Discard contaminated clothing and shoes or thoroughly clean before reuse.

Ingestion: If swallowed, get immediate medical attention. Do not induce vomiting. Never give anything by mouth to an unconscious person.

Inhalation: Move the exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if breathing difficulties continue.

SECTION 5 FIRE FIGHTING MEASURES

FIRE CLASSIFICATION:

OSHA Classification (29 CFR 1910.1200): Not classified by OSHA as flammable or combustible.

NFPA RATINGS: Health: 2 Flammability: 0 Reactivity: 0

FLAMMABLE PROPERTIES:

Flashpoint: NA

Autoignition: NDA

Flammability (Explosive) Limits (% by volume in air): Lower: NA Upper: NA

EXTINGUISHING MEDIA: Dry Chemical, CO₂, AFFF Foam or alcohol resistant foam.

PROTECTION OF FIRE FIGHTERS:

Fire Fighting Instructions: For fires involving this material, do not enter any enclosed or confined fire space without proper protective equipment, including self-contained breathing apparatus.

Combustion Products: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, and unidentified organic

compounds will be evolved when this material undergoes combustion. Combustion may form oxides of Potassium .

SECTION 6 ACCIDENTAL RELEASE MEASURES

Spill Management: Stop the source of the release if you can do it without risk. Contain release to prevent further contamination of soil, surface water or groundwater. Clean up spill as soon as possible, observing precautions in Exposure Controls/Personal Protection. Use appropriate techniques such as applying non-combustible absorbent materials or pumping. Where feasible and appropriate, remove contaminated soil. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations.

Reporting: Report spills to local authorities and/or the U.S. Coast Guard's National Response Center at (800) 424-8802 as appropriate or required.

SECTION 7 HANDLING AND STORAGE

Precautionary Measures: Do not get in eyes. Do not taste or swallow. Wash thoroughly after handling. Do not breathe vapor or fumes.

General Handling Information: Do not taste or swallow antifreeze or solution. Keep out of the reach of children and animals.

General Storage Information: Do not store in open or unlabeled containers.

Container Warnings: Container is not designed to contain pressure. Do not use pressure to empty container or it may rupture with explosive force. Empty containers retain product residue (solid, liquid, and/or vapor) and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, static electricity, or other sources of ignition. They may explode and cause injury or death. Empty containers should be completely drained, properly closed, and promptly returned to a drum reconditioner or disposed of properly.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

GENERAL CONSIDERATIONS:

Consider the potential hazards of this material (see Section 3), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

ENGINEERING CONTROLS:

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below the recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eye/Face Protection: Wear protective equipment to prevent eye contact. Selection of protective equipment may include safety glasses, chemical goggles, face shields, or a combination depending on the work operations conducted.

Skin Protection: No special protective clothing is normally required. Where splashing is possible, select protective clothing depending on operations conducted, physical requirements and other substances in the workplace. Suggested materials for protective gloves include: Natural rubber, Neoprene, Nitrile Rubber, Polyvinyl Chloride (PVC or Vinyl).

Respiratory Protection: Determine if airborne concentrations are below the recommended exposure limits. If not, wear an approved respirator that provides adequate protection from measured concentrations of this material, such as: Air-Purifying Respirator for Organic Vapors, Dusts and Mists. Use a positive pressure air-supplying respirator in circumstances where air-purifying respirators may not

provide adequate protection.

Occupational Exposure Limits:

Component	Limit	TWA	STEL	Ceiling	Notation
Ethylene Glycol	ACGIH_TLV			100 mg/m3	
Ethylene Glycol	OSHA_PEL			125 mg/m3	
Ethylene Glycol	ACGIH			39.4 ppm (weight)	

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Attention: the data below are typical values and do not constitute a specification.

Color: Red

Physical State: Liquid

Odor: NDA

pH: 8.1 - 8.9

Vapor Pressure: NDA

Vapor Density (Air = 1): 2.1

Boiling Point: 228 °F (109 °C)

Solubility: Miscible

Freezing Point: -34 °F (-37 °C)

Melting Point: NDA

Specific Gravity: 1 - 1.5 @ 15.6 °C / 15.6 °C

Viscosity: <20 cSt @ 40 °C

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Incompatibility With Other Materials: May react with strong oxidizing agents, such as chlorates, nitrates, peroxides, etc.

Hazardous Decomposition Products: Aldehydes (Elevated temperatures)

Hazardous Polymerization: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

IMMEDIATE HEALTH EFFECTS

Eye Irritation: The eye irritation hazard is based on evaluation of data for similar materials or product components.

Skin Irritation: The skin irritation hazard is based on evaluation of data for similar materials or product components.

Skin Sensitization: No product toxicology data available.

Acute Dermal Toxicity: The acute dermal toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Oral Toxicity: The acute oral toxicity hazard is based on evaluation of data for similar materials or product components.

Acute Inhalation Toxicity: The acute inhalation toxicity hazard is based on evaluation of data for similar materials or product components.

ADDITIONAL TOXICOLOGY INFORMATION:

This product contains ethylene glycol (EG). The toxicity of EG via inhalation or skin contact is expected to be slight at room temperature. The estimated oral lethal dose is about 100 cc (3.3 oz.) for an adult

CAT TRANSMISSION AND DRIVE TRAIN OIL (TDTO) 10W

MATERIAL SAFETY DATA BULLETIN

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: CAT TRANSMISSION AND DRIVE TRAIN OIL (TDTO) 10W
SUPPLIER: EXXONMOBIL CORPORATION
3225 GALLOWS RD.
FAIRFAX, VA 22037

24 - Hour Health and Safety Emergency (call collect): 609-737-4411
24 - Hour Transportation Emergency (Primary) CHEMTREC: 800-424-9300
(Secondary) 281-834-3296

Product and Technical Information:
Lubricants and Specialties: 800-662-4525 800-443-9966
Fuels Products: 800-947-9147
MSDS Fax on Demand: 613-228-1467
MSDS Internet Website: <http://emmsds.ihssolutions.com/>

2. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAMES AND SYNONYMS: PET. HYDROCARBONS AND ADDITIVES

GLOBALLY REPORTABLE MSDS INGREDIENTS:

None.

OTHER INGREDIENTS:

Substance Name	Approx. Wt%
ZINC ARYLDITHIOPHOSPHATE	1-5

See Section 8 for exposure limits (if applicable).

3. HAZARDS IDENTIFICATION

Under normal conditions of use, this product is not considered hazardous according to regulatory guidelines (See section 15).

EMERGENCY OVERVIEW: Amber Liquid. DOT ERG No. : NA

POTENTIAL HEALTH EFFECTS: Under normal conditions of intended use, this product does not pose a risk to health. Excessive exposure may result in eye, skin or respiratory irritation.

For further health effects/toxicological data, see Section 11.

4. FIRST AID MEASURES

EYE CONTACT: Flush thoroughly with water. If irritation occurs, call a physician.

SKIN CONTACT: Wash contact areas with soap and water. Remove and clean oil soaked clothing daily and wash affected area. (See Section 16 - Injection Injury)

INHALATION: Not expected to be a problem. However, if respiratory irritation, dizziness, nausea, or unconsciousness occurs due to excessive vapor or mist exposure, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or mouth-to-mouth resuscitation.

INGESTION: Not expected to be a problem. Seek medical attention if discomfort occurs. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA: Carbon dioxide, foam, dry chemical and water fog.

SPECIAL FIRE FIGHTING PROCEDURES: Water or foam may cause frothing.

Use water to keep fire exposed containers cool. Water spray may be used to flush spills away from exposure. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply.

SPECIAL PROTECTIVE EQUIPMENT: For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None.

COMBUSTION PRODUCTS: Fumes, smoke, carbon monoxide, sulfur oxides, aldehydes and other decomposition products, in the case of incomplete combustion.

Flash Point C(F): > 199(390) (ASTM D-93).

Flammable Limits (approx.% vol.in air) - LEL: 0.9%, UEL: 7.0%

NFPA HAZARD ID: Health: 0, Flammability: 1, Reactivity: 0

6. ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES: Report spills/releases as required to appropriate authorities. U.S. Coast Guard and EPA regulations require immediate reporting of spills/releases that could reach any waterway including intermittent dry creeks. Report spill/release to Coast Guard National Response Center toll free number (800)424-8802. In case of accident or road spill notify CHEMTREC (800) 424-9300.

PROCEDURES IF MATERIAL IS RELEASED OR SPILLED:

LAND SPILL: Shut off source taking normal safety precautions. Take measures to minimize the effects on ground water. Recover by pumping or contain spilled material with sand or other suitable absorbent and remove mechanically into containers. If necessary, dispose of adsorbed residues as directed in Section 13.

WATER SPILL: Confine the spill immediately with booms. Warn other ships in the vicinity. Notify port and other relevant authorities. Remove from the surface by skimming or with suitable absorbents. If permitted by regulatory authorities the use of suitable dispersants should be considered where recommended in local oil spill procedures.

ENVIRONMENTAL PRECAUTIONS: Prevent material from entering sewers, water sources or low lying areas; advise the relevant authorities if it has, or if it contaminates soil/vegetation.

PERSONAL PRECAUTIONS: See Section 8

7. HANDLING AND STORAGE

HANDLING: No special precautions are necessary beyond normal good hygiene practices. See Section 8 for additional personal protection advice when handling this product.

STORAGE: Keep containers closed when not in use. Do not store in open or unlabelled containers. Store away from strong oxidizing agents and combustible materials. Do not store near heat, sparks, flame or strong oxidants.

SPECIAL PRECAUTIONS: Prevent small spills and leakages to avoid slip hazard.

EMPTY CONTAINER WARNING: Empty containers retain residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Do not attempt to refill or clean container since residue is difficult to remove. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.



California Aluminum Chemicals

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identity: CC 2000

Intended Use:

Manufacturer: California Aluminum Chemicals
241 Spenker Avenue
Modesto, CA 95354

HMIS Hazard Ratings

Health	1
Fire	0
Reactivity	0

Telephone: (209) 525-3932

Fax: (209) 525-8928

Internet: www.calchem.biz

Emergency Phone: CHEMTREC: (800) 424-9300

MSDS Date of Preparation: 6/28/06

Prepared by: Mike Brown · California Aluminum Chemicals · 241 Spenker Avenue · Modesto, CA 95354

2. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No.	Amount
Aluminum Chlorohydrate	12042-91-0	50%
Water	7732-18-5	50%

3. HAZARDS IDENTIFICATION

This product is a clear, colorless to yellow liquid with no odor.

EMERGENCY OVERVIEW

WARNING!

Causes eye irritation. May cause skin irritation. Inhalation of mists may cause mucous membrane and respiratory irritation.

4. FIRST AID MEASURES

Eye: Immediately flush victim's eyes with large quantities of water for at least 15 minutes, holding the eyelids apart. Get immediate medical attention.

Skin: Immediately flush skin with plenty of water for 15 minutes while removing contaminated clothing and shoes. Wash skin thoroughly with soap and water. Get medical attention. Launder clothing before re-use.

Ingestion: Do Not induce vomiting. Rinse mouth with water and give one glass of water to drink. Never give anything by mouth to an unconscious or convulsing person. Get immediate medical attention.

Inhalation: Immediately remove victim to fresh air. If breathing is difficult have qualified personnel administer oxygen. If breathing has stopped, administer artificial respiration. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flashpoint: None

Flammable Limits: LEL: Not applicable UEL: Not applicable

Autoignition Temperature: None

Extinguishing Media: Use media appropriate for surrounding fire. Cool fire exposed containers and structures with water.

Unusual Fire or Explosion Hazards: None known.

Special Fire-Fighting Instructions: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing.

Hazardous Combustion Products: Oxides of carbon and chlorine compounds including hydrogen chloride.

Explosion Data (sensitivity to mechanical impact or static discharge): None known.

6. ACCIDENTAL RELEASE MEASURES

Evacuate spill area and keep unprotected personnel away. Wear appropriate protective clothing as described in Section 8. Contain and recover liquid where possible. Collect using an inert absorbent material and place in appropriate containers for disposal. Prevent spill from entering sewers and water courses. Report releases as required by local, state and federal authorities.

7. HANDLING AND STORAGE

Handling: Avoid contact with the eyes. Avoid prolonged or repeated skin contact. Avoid breathing mists or aerosols. Wear protective clothing and equipment as described in Section 8. Use with adequate ventilation. Wash thoroughly with soap and water after handling. Keep containers closed when not in use.

Do not reuse containers. Empty containers retain product residues can be hazardous. Follow all MSDS precautions when handling empty containers.

Storage: Store in a cool, dry, well ventilated area away from heat and incompatible materials. Protect from physical damage.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

Aluminum Chlorohydrate	2 mg/m ³ TLV-TWA (as Al)
Water	None Established

Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: In operations where exposure levels are exceeded, a NIOSH approved respirator with dust/mist cartridges or supplied air respirator appropriate for the form and concentration of the contaminants should be used. Selection and use of respiratory equipment must be in accordance with OSHA 1910.134 and good industrial hygiene practice.

Skin Protection: Wear impervious gloves such as rubber or neoprene.

Eye Protection: Chemical safety goggles where splashing is possible.

Other: Impervious coveralls, apron and boots as needed to prevent contact. A safety shower and eye wash should be available in the immediate work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance And Odor: Clear, colorless liquid to yellow with no odor.

Physical State: Liquid	Boiling Point: 212°F
Vapor Density: Same as water	Vapor Pressure: Same as water
Solubility In Water: Soluble	Evaporation Rate: Same as water
Specific Gravity: 1.34	pH: (15% w/w): 4.0-5.0
Melting Point: 22°F	Octanol/Water Coefficient: Not determined
VOC Content: 0%	

10. STABILITY AND REACTIVITY

Stability: Stable under normal storage and handling conditions.

Incompatibility: Metals (zinc and aluminum), alkalis.

Hazardous Decomposition Products: When heated to decomposition emits toxic oxides of carbon and chlorine compounds including hydrogen chloride. Reacts with metals to form flammable hydrogen gas.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

HEALTH HAZARDS:

Ingestion: Ingestion may cause irritation of the mucous membranes, esophagus and stomach. May cause nausea, vomiting and diarrhea. Large amounts may cause liver and kidney effects.

Inhalation: Inhalation of mists may cause irritation of the nose throat and upper respiratory tract.

Eye: May cause moderate to severe irritation with pain and tearing. Corneal damage is possible.

Skin: May cause irritation on prolonged or repeated contact.

Sensitization: This material is not known to cause sensitization.

Chronic: Prolonged inhalation of aluminum chlorohydrate in laboratory animals causes fibrosis of the lungs.

Carcinogenicity: None of the components is listed as a carcinogen or suspected carcinogen by IARC, NTP or OSHA.

Mutagenicity: None currently known.

Medical Conditions Aggravated by Exposure: Employees with pre-existing eye, skin and respiratory disease may be at increased risk from exposure.

Acute Toxicity Values:

No data available.

12. ECOLOGICAL INFORMATION

No ecotoxicity data is available.

13. DISPOSAL CONSIDERATIONS

Dispose in accordance with local, state and federal environmental regulations.

14. TRANSPORT INFORMATION

Dot Hazardous Materials Description:
Proper Shipping Name: Not Regulated
UN Number: None
Hazard Class/Packing Group: None
Labels Required: None

15. REGULATORY INFORMATION

CERCLA: This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA Hazard Category (311/312): Acute Health

SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

EPA TSCA Inventory: All of the ingredients in this product are listed on the EPA TSCA Inventory.

CANADA:

This product has been classified under the CPR and this MSDS discloses information elements required by the CPR.

Canadian CEPA: All the components of this product are listed on the Canadian DSL.

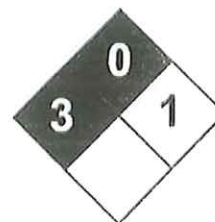
Canadian WHMIS Classification: Class D-2-B (Toxic material causing other chronic effects)

16. OTHER INFORMATION

NFPA Rating: Health = 1 Fire = 0 Reactivity = 0
HMIS Rating: Health = 1 Fire = 0 Reactivity = 0

NOTICE

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. California Aluminum Chemicals shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.



Health	3
Fire	0
Reactivity	1
Personal Protection	

Material Safety Data Sheet

Sodium Hydroxide, 50% MSDS

Section 1: Chemical Product and Company Identification

Product Name: Sodium Hydroxide, 50%

Catalog Codes: SLS3127, SLS4549

CAS#: Mixture.

RTECS: Not applicable.

TSCA: TSCA 8(b) inventory: Sodium hydroxide; Water

CI#: Not applicable.

Synonym: Sodium Hydroxide, 50% Solution

Chemical Name: Not applicable.

Chemical Formula: Not applicable.

Contact Information:

Sciencelab.com, Inc.

14025 Smith Rd.

Houston, Texas 77396

US Sales: 1-800-901-7247

International Sales: 1-281-441-4400

Order Online: ScienceLab.com

CHEMTREC (24HR Emergency Telephone), call:
1-800-424-9300

International CHEMTREC, call: 1-703-527-3887

For non-emergency assistance, call: 1-281-441-4400

Section 2: Composition and Information on Ingredients

Composition:

Name	CAS #	% by Weight
Sodium hydroxide	1310-73-2	50
Water	7732-18-5	50

Toxicological Data on Ingredients: Sodium hydroxide LD50: Not available. LC50: Not available.

Section 3: Hazards Identification

Potential Acute Health Effects:

Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (irritant, corrosive), of ingestion, . Slightly hazardous in case of inhalation (lung sensitizer). Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

Potential Chronic Health Effects:

CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to lungs. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation

leading to frequent attacks of bronchial infection. Repeated exposure to a highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

Section 4: First Aid Measures

Eye Contact:

Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention immediately. Finish by rinsing thoroughly with running water to avoid a possible infection.

Skin Contact:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact:

Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation:

Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion:

If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

Section 5: Fire and Explosion Data

Flammability of the Product: Non-flammable.

Auto-Ignition Temperature: Not applicable.

Flash Points: Not applicable.

Flammable Limits: Not applicable.

Products of Combustion: Not available.

Fire Hazards in Presence of Various Substances: Not applicable.

Explosion Hazards in Presence of Various Substances: Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Not applicable.

Special Remarks on Fire Hazards: Not available.

Special Remarks on Explosion Hazards:

Sodium hydroxide reacts to form explosive products with ammonia + silver nitrate. Benzene extract of allyl benzenesulfonate prepared from allyl alcohol, and benzene sulfonyl chloride in presence of aqueous sodium hydroxide, under vacuum distillation, residue darkened and exploded. Sodium Hydroxide + impure tetrahydrofuran, which can contain peroxides, can cause serious explosions. Dry mixtures of sodium hydroxide and sodium tetrahydroborate liberate hydrogen explosively at 230-270 deg. C. Sodium Hydroxide reacts with sodium salt of trichlorophenol + methyl alcohol + trichlorobenzene + heat to cause an explosion. (Sodium hydroxide)

Section 6: Accidental Release Measures

Small Spill:

Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of acetic acid.

Large Spill:

Corrosive liquid. Poisonous liquid. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Neutralize the residue with a dilute solution of acetic acid. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

Section 7: Handling and Storage

Precautions:

Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals, acids, alkalis, moisture.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area.

Section 8: Exposure Controls/Personal Protection

Engineering Controls:

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

Personal Protection:

Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill:

Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:

Sodium hydroxide STEL: 2 (mg/m³) from ACGIH (TLV) [United States] TWA: 2 CEIL: 2 (mg/m³) from OSHA (PEL) [United States] CEIL: 2 (mg/m³) from NIOSH Consult local authorities for acceptable exposure limits.

Section 9: Physical and Chemical Properties

Physical state and appearance: Liquid.

Odor: Odorless.

Taste: Alkaline. Bitter. (Strong.)

Molecular Weight: Not applicable.

Color: Clear Colorless.

pH (1% soln/water): Basic.

Boiling Point: 140°C (284°F)

Melting Point: 12°C (53.6°F)

Critical Temperature: Not available.

Specific Gravity: 1.53 (Water = 1)

Vapor Pressure: The highest known value is 2.3 kPa (@ 20°C) (Water).

Vapor Density: The highest known value is 0.62 (Air = 1) (Water).

Volatility: Not available.

Odor Threshold: Not available.

Water/Oil Dist. Coeff.: Not available.

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water.

Solubility: Easily soluble in cold water.

Section 10: Stability and Reactivity Data

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Excess heat, incompatible materials, water/moisture

Incompatibility with various substances:

Reactive with oxidizing agents, reducing agents, metals, acids, alkalis. Slightly reactive with water

Corrosivity:

Extremely corrosive in presence of aluminum, brass. Corrosive in presence of copper, of stainless steel(304), of stainless steel(316). Non-corrosive in presence of glass.

Special Remarks on Reactivity:

Hygroscopic. Much heat is evolved when solid material is dissolved in water. Therefore cold water and caution must be used for this process. Generates considerable heat when a sodium hydroxide solution is mixed with an acid Sodium hydroxide solution and octanol + diborane during a work-up of a reaction mixture of oxime and diborane in tetrahydrofuran is very exothermic, a mild explosion being noted on one occasion. Reactive with water, acids (mineral, non-oxidizing, e.g. hydrochloric, hydrofluoric acid, muriatic acid, phosphoric), acids (mineral, oxidizing e.g. chromic acid, hypochlorous acid, nitric acid, sulfuric acid), acids (organic e.g. acetic acid, benzoic acid, formic acid, methanoic acid, oxalic acid), aldehydes (e.g. acetaldehyde, acrolein, chloral hydrate, formaldehyde), carbamates (e.g. carbanolate, carbofuran), esters (e.g. butyl acetate, ethyl acetate, propyl formate), halogenated organics (dibromoethane, hexachlorobenzene, methyl chloride, trichloroethylene), isocyanates (e.g. methyl isocyanate), ketones (acetone, acetophenone, MEK, MIBK), acid chlorides, strong bases, strong oxidizing agents, strong reducing agents, flammable liquids, powdered metals and metals (i.e. aluminum, tin, zinc, hafnium, raney nickel), metals (alkali and alkaline e.g. cesium, potassium, sodium), metal compounds (toxic e.g. beryllium, lead acetate, nickel carbonyl, tetraethyl lead), nitrides (e.g. potassium nitride, sodium nitride), nitriles (e.g. acetonitrile, methyl cyanide), nitro compounds (organic e.g. nitrobenzene, nitromethane), acetic anhydride, hydroquinone, chlorohydrin, chlorosulfonic acid, ethylene cyanohydrin, glyoxal, hydrosulfuric acid, oleum, propiolactone, acrylonitrile, phosphorus pentoxide, chloroethanol, chloroform-methanol, tetrahydroborate, cyanogen azide, 1,2,4,5 tetrachlorobenzene, cinnamaldehyde. Reacts with formaldehyde hydroxide to yield formic acid, and hydrogen. (Sodium hydroxide)

Special Remarks on Corrosivity: Very caustic to aluminum and other metals in presence of moisture.

Polymerization: Will not occur.

Section 11: Toxicological Information

Routes of Entry: Absorbed through skin. Dermal contact. Eye contact. Inhalation.

Toxicity to Animals:

LD50: Not available. LC50: Not available.

Chronic Effects on Humans: Not available.

Other Toxic Effects on Humans:

Extremely hazardous in case of inhalation (lung corrosive). Very hazardous in case of skin contact (corrosive, irritant, permeator), of eye contact (corrosive), of ingestion, .

Special Remarks on Toxicity to Animals: Not available.

Special Remarks on Chronic Effects on Humans: Investigation as a mutagen (cytogenetic analysis), but no data available. (Sodium hydroxide)

Special Remarks on other Toxic Effects on Humans:

Acute Potential Health Effects: Skin: May be harmful if absorbed through skin. Causes severe skin irritation and burns. May cause deep penetrating ulcers of the skin. Eyes: Causes severe eye irritation and burns. May cause chemical conjunctivitis and corneal damage. Inhalation: Harmful if inhaled. Causes severe irritation of the respiratory tract and mucous membranes with coughing, burns, breathing difficulty, and possible coma. Irritation may lead the chemical pneumonitis and pulmonary edema. Causes chemical burns to the respiratory tract and mucous membranes. Ingestion: May be fatal if swallowed. May cause severe and permanent damage to the digestive tract. Causes

Section 12: Ecological Information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation:

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available.

Section 13: Disposal Considerations**Waste Disposal:**

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Section 14: Transport Information

DOT Classification: Class 8: Corrosive material

Identification: : Sodium hydroxide, solution (Sodium hydroxide) UNNA: UN1824 PG: II

Special Provisions for Transport: Not available.

Section 15: Other Regulatory Information**Federal and State Regulations:**

Illinois toxic substances disclosure to employee act: Sodium hydroxide Illinois chemical safety act: Sodium hydroxide New York release reporting list: Sodium hydroxide Rhode Island RTK hazardous substances: Sodium hydroxide Pennsylvania RTK: Sodium hydroxide Minnesota: Sodium hydroxide Massachusetts RTK: Sodium hydroxide New Jersey: Sodium hydroxide Louisiana spill reporting: Sodium hydroxide TSCA 8(b) inventory: Sodium hydroxide; Water CERCLA: Hazardous substances.: Sodium hydroxide: 1000 lbs. (453.6 kg);

Other Regulations: OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:

WHMIS (Canada):

CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive liquid.

DSCL (EEC):

HMIS (U.S.A.):

Health Hazard: 3

Fire Hazard: 0

Reactivity: 1

Personal Protection:

National Fire Protection Association (U.S.A.):

Health: 3

Flammability: 0

Reactivity: 1

Specific hazard:

Protective Equipment:

Gloves. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Wear appropriate respirator when ventilation is inadequate. Face shield.

Section 16: Other Information

References: Not available.

Other Special Considerations: Not available.

Created: 10/09/2005 06:32 PM

Last Updated: 05/21/2013 12:00 PM

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HEXAGON TECHNOLOGIES, INC.

MATERIAL SAFETY DATA SHEET

**FOR 24 HOUR CHEMICAL EMERGENCIES CALL
INFOTRAC: 1-800-535-5053**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hexafloc™AM-26

Chemical Family: Anionic, Polyacrylamide Copolymer in Water-in-Oil Emulsion

Manufacturer/Supplier: Hexagon Technologies, Inc.
3600 Chamberlain Lane, Suite 802
Louisville, KY 40241
Phone: 502-429-8990
Fax: 502-429-8911

2. COMPOSITION/INFORMATION ON INGREDIENTS

The composition of this product is proprietary information. Under 29 CFR 1910.1200, the product is an irritant based upon the following information:

Petroleum Distillate & Polyacrylamide-Irritant to eyes and skin.

3. HAZARDS IDENTIFICATION

Emergency Overview:

Physical Appearance: Opaque, off white emulsion

Immediate Concerns: Warning! Causes eye irritation. Mist may be harmful if inhaled.

Potential Health Effects:

Eyes: Irritating, and may injure eye tissue if not removed promptly.

Skin: Low order of toxicity. Prolonged or repeated contact may irritate and cause dermatitis.

Ingestion: Low order of toxicity. May result in gastrointestinal irritation, nausea and diarrhea. Small amounts of the liquid aspirated into the respiratory system during ingestion, or from vomiting, may cause bronchopneumonia or pulmonary edema.

Inhalation: Irritating to eyes and respiratory tract in high concentrations. Repeated and prolonged overexposure to oil mists may result in droplet deposition, oil granuloma

formation, inflammation and increased incidence of infection.

4. FIRST AID MEASURES

Skin: Wash with large amounts of water; use soap if available. Remove grossly contaminated clothing, including shoes, and launder before reuse. If irritation persists, seek medical attention.

Eyes: Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

Ingestion: If swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty.

Inhalation: In case of adverse exposure to vapors and/or aerosols, immediately remove the affected victim from exposure and get immediate medical attention. If breathing is difficult, give oxygen. If breathing stops, give artificial respiration.

5. FIRE FIGHTING MEASURES

Flashpoint and Method: > (200°F) SETA Flash CC

Flammable Limits: 1.3 to 8.1%, @ 77 F (Petroleum Distillate)

Autoignition Temperature: Not Available

Hazardous Combustion Products: None known

Fire Fighting Procedures: Use water to cool fire-exposed surfaces and to protect personnel. Isolate "fuel" supply from fire. Use foam, dry chemical, or water spray to extinguish fire.

Fire Fighting Equipment: As in any fire, wear self-contained breathing apparatus pressure-demand, (MSHA/NIOSH approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Environmental Precautions:

Water Spill: Prevent additional discharge of material, if possible to do so without hazard. Remove from surface by skimming or with suitable absorbents. Consult an expert on disposal of recovered material, and ensure conformity to all federal, state and local disposal regulations.

Land Spill: Prevent additional discharge of material, if possible to do so without hazard. For small spills implement cleanup procedures; for large spills implement cleanup procedures and, if in public area, advise authorities.

General Procedures: Spilled product should be scooped up as much as possible and the remaining thin layer absorbed with a solid material such as sweeping compound. Washing the area with water should only be attempted after most of the polymer has been removed.

Release Notes: Recycle or dispose of recovered material in accordance with all federal, state and local regulations.

Comments: Spilled material is slippery. Contact with water may form a highly viscous and stringy material which is extremely slippery, difficult to clean up and can clog small drains.

7. HANDLING AND STORAGE

General Procedures: Keep container closed. Handle containers with care. Store in a cool, well ventilated place away from incompatible materials. DO NOT pressurize, cut, heat, or weld containers. Empty product containers may contain product residue. DO NOT reuse empty containers without commercial cleaning or reconditioning.

Handling: Mix well before using. Upon standing, product may stratify (as noted by a clear upper layer of oil). Mild agitation will restore uniformity.

Storage: Do not use aluminum, copper or mild steel tanks, pumps or piping with this product. Store in glass, stainless steel, plastic or epoxy lined containers.

Storage Temperature: Keep from freezing.

Storage Pressure: Atmospheric

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Ventilation should be provided to control worker exposures and prevent health risk; and as necessary to reduce, prevent and control aerosol generation.

Personal Protection:

Eyes and Face: Safety glasses with side shields.

Skin: Where contact may occur, wear chemical resistant gloves, and long sleeves.

Respiratory: Where concentrations in air may exceed the limits given in this section or Section 2 and engineering, work practice or other means of exposure reduction are not adequate, NIOSH/MSHA approved respirators may be necessary to prevent overexposure by inhalation.

Other Use Precautions: In the area where this product is used, an eyewash station is necessary and a safety shower is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: ~212°F (initial)

Density: 8.8 to 9.0 lb/gal at 80°F

Evaporation Rate: <1 (n-Butyl Acetate=1)

Freezing Point: <20°F

Odor: Slightly hydrocarbon odor

Physical State: Liquid

Specific Gravity: 1.06 to 1.08 at 80°F

Vapor Density: >1 (Air = 1)

Vapor Pressure: <10 mm Hg at 77°F

Viscosity: 400 to 1200cP at (80°F) (Brookfield RVT (sp#3 @ 50 rpm)

(VOC): 22.7% (calculated)

Comments:

Water Solubility: Soluble with vigorous agitation. Contact with water at a product greater than approximately 2% (without vigorous agitation) results in a highly viscous and stringy material which is extremely slippery, difficult to clean up, and can clog small drains.

10. STABILITY AND REACTIVITY

Stable: Yes

Hazardous Polymerization: No

Hazardous Decomposition: None

Incompatible Materials: Strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Target Organs: At high oral doses, the petroleum distillate used in this product caused reversible damage to the liver and kidney (male only) of rats. These effects are not relevant to humans at occupational levels of exposure.

12. ECOLOGICAL INFORMATION

Ecotoxicological Information: No information available.

13. DISPOSAL CONSIDERATIONS

Empty Container: "Empty" containers retain product residue (liquid and/or vapor). Although the residue is a low fire hazard (flash point >200 F), it can burn upon heating to temperatures at or above the flashpoint and can be dangerous. Therefore, 'DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY

EXPLODE AND CAUSE INJURY OR DEATH'. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

General Comments: Ensure compliance with local, state, and Federal regulations in disposing of this container, residual contents, or rinsing.

14. TRANSPORT INFORMATION

DOT (Department of Transportation)

Proper Shipping Name: Not Regulated

15. REGULATORY INFORMATION

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

Fire: No

Pressure Generating: No

Reactivity: No

Acute: Yes

Chronic: No

311/312 Hazard Categories: Acute Health

313 Reportable Ingredients: This product does not contain Section 313 Reportable Ingredients.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA Regulatory: If this product is accidentally spilled, it is not subject to any special reporting under the requirements of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). We recommend you contact local authorities to determine if there may be other local reporting requirements.

TSCA (Toxic Substance Control Act)

TSCA Status: All components of this product are listed on the TSCA Inventory or are exempt from TSCA Inventory requirements.

RCRA Status: Discarded product, as sold, would not be considered a RCRA Hazardous Waste.

EPA: EPA RQ ingredient: Ammonium Chloride

Clean Water Act: This product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.

16. OTHER INFORMATION

Revised Date: December 27, 2004

HMIS Codes:

Flammability: 1

Health: 1

Physical Hazard: 0

HMIS Ratings Notes: This information is for people trained in Key the National Paint & Coatings Association's 4 = Severe (NPCA) Hazardous Materials Identification; 3 = Serious System (HMIS). 2 = Moderate 1 = Slight 0 = Minimal

Manufacturer Disclaimer:

THIS TECHNICAL AND SAFETY INFORMATION IS GIVEN IN GOOD FAITH TO OUR CUSTOMERS BUT IT SHOULD NOT BE CONSTRUED AS A WARRANTY OR REPRESENTATION FOR WHICH HEXAGON TECHNOLOGIES CAN ASSUME LEGAL RESPONSIBILITY. THIS INFORMATION SHALL NOT BE CONSTRUED AS RECOMMENDATION TO USE ANY PRODUCT IN CONFLICT WITH EXISTING PATENTS OR LICENSES. USERS SHOULD VERIFY AND TEST THE SUITABILITY OF THE PRODUCTS FOR THEIR OWN SPECIFIC APPLICATIONS. FURTHERMORE, NO RESPONSIBILITY IS ASSUMED OR IMPLIED FOR PRODUCT MISUSE AND RESULTING DAMAGES.