


**SAFETY DATA SHEET****FIRST CHEMICAL LIMITED**

SECTION 1: IDENTIFICATION	
Product Name	CHRISFED LIQUID
Product UPC Recommended use of the chemical and restrictions on use	27909- 04401
Product Code	04401
Manufacturer Address First Chemical Limited 83 Torbarrie Road Toronto, Ontario M3L 1G5	
Emergency Contact Number	416- 249- 8050 and 416- 678- 3179
Recommended Use	Mechanical Machine Detergent

SECTION 2: HAZARD IDENTIFICATION	
GHS Classification	
Skin Irritation	Category 1 Sub-category A
Eye Irritation	Category 1
Corrosive to metals	Category 1
GHS Label Elements	

Chrisfed Liquid

Hazard pictogram	
Signal Word :	Danger
Symbols :	
Hazard Statements:	Causes severe skin burns and serious eye damage. May be corrosive to metals.
<u>Precautionary Statements:</u>	
Prevention:	Do not breathe mist, vapors or spray. Wash hands and any exposed skin thoroughly after handling. Wear protective gloves. Wear eye/face protection. Wear protective clothing. Keep in original or other corrosion resistant container.
Response:	IMMEDIATELY CALL A POISON CENTER OR PHYSICIAN
Eyes	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Skin	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash contaminated clothing before reuse.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Ingestion:	IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.
Specific Treatment:	See Safety Data Sheet Section4: "FIRST AID MEASURES" for additional information.
Spill:	Absorb spillage to prevent material damage.
Storage:	Store locked up. Store in corrosion resistant container.
Disposal:	Dispose of contents and container in accordance with local, state and federal regulations.
Hazards Not Otherwise Classified:	Not Applicable.
Other information:	Corrosive. Harmful or fatal if swallowed / Harmful contact may not cause immediate pain. Inhalation of vapors or mist may cause respiratory irritation/damage. Take off and destroy contaminated shoes / Keep out of reach of children. Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

SECTION 3: INGREDIENTS

Chemical Name	CAS NO	Weight-%
Water	7732-18-5	>40%
Sodium hydroxide	1310-73-2	>10%
Potassium hydroxide	1310-58-3	>10%
Sodium Silicate	1344-09-8	< 10%
Poly acrylic Acid	Trade Secret	< 10%

SECTION 4: FIRST AID MEASURES

In case of eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
In case of skin contact:	Take off immediately all contaminated clothing and shoes. Rinse with plenty of water for at least 15 minutes. Use mild soap if available. Get medical attention if irritation develops and persists
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
If swallowed:	Rinse mouth with water. Get medical attention if symptoms occur
Notes to physician:	Treat symptomatically
Most important symptoms/effects both acute and delayed	See Section 11 for more detailed information on health effects and symptoms

SECTION 5: FIREFIGHTING MEASURES

Suitable extinguishing media:	Product does not support combustion. Use extinguishing agent suitable for type of surrounding fire.
Specific Hazards Arising from the Chemical:	Dried product is capable of burning. Combustion products are toxic.
Hazardous Combustion Products:	May include Carbon monoxide carbon dioxide and other toxic gases or vapors.
Protective Equipment and Precautions for Firefighters:	Wear MSHA/ NIOSH approved self-contained breathing apparatus (SCBA) and full protective gear. Cool fire-exposed containers with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.
Environmental Precautions:	Do not rinse spill onto the ground ,into storm sewers or bodies of water.
Methods for Clean-up.	Prevent further leakage or spillage if safe to do so. Contain and collect spillage with non-combustible absorbent material,(e.g. sand, earth, diatomaceous earth) and place in container for disposal according to local/national regulations (see Section 13).

SECTION 7: HANDLING AND STORAGE

Advice on safe handling	Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling.
Storage Conditions:	Keep containers tightly closed in dry, cool and well-ventilated place. Keep out of the reach of children. Keep from freezing.

SECTION 8: EXPOSURE CONTROLS**Occupational Exposure Limits:**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH
Sodium Hydroxide 1310-73-2	Celling 2 mg/m ³	TWA: 2 mg/m ³ (vacated) Celling:2mg/m ³	IDLH: 10mg/m ³ Celling: 2mg/m ³
Potassium hydroxide 1310-58-3	Celling: 2 mg/m ³	(vacated) Celling:2mg/m ³	Celling: 2mg/m ³

Engineering Controls: Provide good general ventilation.
If work practices generate dust ,fumes, gas, vapors or mists which expose workers to Chemicals above the occupational exposure limits, local exhaust ventilation or other Engineering controls should be considered.
Eye wash stations and shower facilities should be readily accessible in area where the Product is handled.

Personal Protective Equipment.

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Eye / Face Protection:	Wear splash goggles. For severe use- conditions, wear a face shield over the goggles.
Skin and Body Protection:	Wear rubber or other chemical-resistant gloves. Use of impervious apron, boots and other protective equipment should be considered in order to prevent or minimize contact with this product.
Respiratory Protection:	Not required with expected use. If occupational exposure limits are exceeded or respiratory irritation occurs, use of a NIOSH / MSHA approved respirator suitable for the use-conditions and chemicals in section 3 should be considered.
General Hygiene Considerations:	Wash hands and any exposed skin thoroughly after handling. See 29 CFR 1910.132-138 for further guidance.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid
Colour	Clear
Odour	Mild Odour
pH	12.5 -12.8
Flash point	N/A
Odour threshold	N/A
Melting/freezing point	N/A
Initial boiling point/boiling range	100 degree Celsius
Evaporation rate	<1 (BuAc =1)
Flammability (solid and gas)	N/A
Upper explosion limit	N/A
Lower explosion limit	N/A
Vapour pressure	N/A
Relative vapour density	N/A
Specific gravity	1.31
Water solubility	Soluble in water
Viscosity	Thin (like water)

SECTION 10: STABILITY AND REACTIVITY	
Reactivity:	Non-reactive under normal conditions of use.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	Contact with aluminum or other reactive metals may release hydrogen gas.
Conditions to avoid:	Extremes of temperature and direct sunlight. Keep containers tightly closed. Handle and open containers carefully.
Incompatible materials:	Acids, zinc, tin, aluminium and their alloys, any material reactive with extremely alkaline liquids.
Hazardous Decomposition Products:	May include carbon monoxide, carbon dioxide (CO2) And other toxic gases or vapors.

SECTION 11: TOXICOLOGICAL INFORMATION	
Likely Routes of Exposure:	Eyes, Skin, Ingestion, Inhalation.
Symptoms of Exposure:	
Eye Contact:	Pain, redness, swelling of the conjunctive and tissue damage. Eye contact may cause permanent damage.
Skin Contact:	Pain, redness, blistering and possible chemical burn.
Inhalation:	Irritation or damage to the mucus membranes of the respiratory tract. Inhalation of vapors in high concentration may cause irritation of respiratory system.
Ingestion:	Damage or chemical burns to mouth, throat and stomach. Pain, nausea, vomiting and diarrhea.
Immediate, Delayed, Chronic Effects	
Product information:	Data not available.
Target Organ Effects:	Eyes. Respiratory System. Skin.
Numerical Measures of Toxicity	

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The following acute toxicity estimates (ATE) are calculated based on the CHS document.			
ATEmix (oral):		4900 mg / kg	
ATEmix (dermal):		7277 mg / Kg	
Component Cute Toxicity information			
Chemical Name	Oral LD 50	Dermal LD50	Inhalation LD50
Water 7732-18-5	>90ml/kg (Rat)	Not Available	Not Available
Sodium hydroxide 1310-73-2	Not Available	=1350 mg / kg (Rabbit)	Not Available
Potassium hydroxide 1310-58-3	=214 ml/kg (Rat)	Not Available	Not Available
Carcinogenicity: No components present at 0.1% or greater are listed as to being carcinogens by ACGIH, IARC, NTP or OSHA.			

SECTION 12: ECOLOGICAL INFOMRATION				
Eco toxicity				
Chemical Name	Algae/aquatic Plants	Fish	Toxicity to Microorganisms	Crustacea
Sodium hydroxide 1310-73-2	Not Available	45.4:96h Oncorhynchus mykiss mg/l LC50 static	Not Available	Not Available
Potassium hydroxide 1310-58-3	Not Available	80:96h Gambusia affinis Mg/L LD50 static	Not Available	Not Available
Persistence and Degradability:		No Available		
Bioaccumulation:		No Available		
Other Adverse Effects:		No Available		

SECTION 13: DISPOSAL CONSIDERATIONS	
Disposal of Wastes :	Dispose of according to all local and federal regulations.
Contaminated Packaging:	Dispose of according to all local and federal regulations.
US EPA Waste Number:	D002

SECTION 14: TRANSPORT INFORMATION	
DOT :	
UN/ID No:	UN 1760
Proper Shipping Name:	Corrosive liquids, n.o.s., (contains sodium hydroxide Potassium hydroxide)
Hazard Class:	8
Packing Group:	II
Special Provisions:	Shipping description may vary based on mode of transport, quantities, package size, and/ origin and destination.

IMDG:	
UN/ID No:	UN 1760
Proper Shipping Name:	Corrosive liquids, n.o.s., (contains sodium hydroxide Potassium hydroxide)
Hazard Class:	8
Packing Group:	II

SECTION 15: REGULATORY INFORMATION	
<u>International Inventories</u>	
TSCA	Complies
DSL/NDSL	Complies
<u>Legend:</u>	
TSCA- United States Toxic Substances Control Act Section 8(b) Inventory	
DSL/NDSL- Canadian Domestic Substances List/ Non- Domestic Substances lists	
<u>US Federal Regulations</u>	
<u>SARA 313</u>	
This product does not contain listed substances above the “de minimus” level	

<u>Sara 311/312 Hazard Categories</u>	
Acute health hazard	YES
Chronic Health Hazard	NO
Fire hazard	NO
Sudden release of pressure hazard	NO
Reactive hazard	NO
<u>California Proposition 65</u>	
This product does not contain any Proposition 65 chemicals	

SECTION 16: OTHER INFORMATION				
NFPA	Health Hazards: 3	Flammability: 0	Instability : 1	Special : N/ A
HMIS	Health Hazards: 3	Flammability: 0	Physical Hazards : 1	

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End of Safety Data Sheet