



Liquid Circulation Cleaner (LCC)

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom

Date of issue: 05/13/2020

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Version 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : Liquid Circulation Cleaner (LCC)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Caustic Cleaner

1.3. Details of the supplier of the safety data sheet

Manufacturer

Five Star Chemicals & Supply Inc
4915 E 52nd Ave
Commerce City, CO 80022
T (303)287-0186

1.4. Emergency telephone number

Emergency number : INFOTRAC 800-535-5035

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS US Classification

Skin Corr. 1A

2.2. Label elements

GHS US labeling

Hazard pictograms (GHS) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

Causes severe skin burns and eye damage.

Precautionary statements (GHS US) :

Do not breathe dust/mist.

Wash hands, forearms and face thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a POISON CENTER or doctor.

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Sodium hydroxide	(CAS-No.) 1310-73-2	25 - 45
Potassium hydroxide	(CAS-No.) 1310-58-3	0 - 5

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : If inhaled: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.
- First-aid measures after ingestion : IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER or doctor.

4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : Causes burns to the respiratory system.
- Symptoms/effects after skin contact : Causes severe skin burns. Symptoms may include redness, pain, blisters.
- Symptoms/effects after eye contact : Causes serious eye damage. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva. May cause burns.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Dry Chemical powder. Carbon dioxide. Foam. Water Spray. Sand
- Unsuitable extinguishing media : Do not use water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Products of combustion may include, and are not limited to: oxides of carbon. May release toxic or corrosive products.

5.3. Advice for firefighters

- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

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6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke. Provide adequate ventilation.
- Hygiene measures : Wash contaminated clothing before reuse. Wash hands, forearms and face thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store locked up. Store in original container. Store in a dry, cool and well-ventilated area.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Liquid Circulation Cleaner		
ACGIH	Not applicable	
OSHA	Not applicable	
Sodium hydroxide (1310-73-2)		
ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	OSHA PEL (TWA) (mg/m ³)	2 mg/m ³
Potassium hydroxide (1310-58-3)		
ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³
ACGIH	Remark (ACGIH)	URT, eye, & skin irr
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Wear suitable gloves resistant to chemical penetration.

Eye protection:

Wear eye/face protection.

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Appearance	: Amber
Odour	: Characteristic
Odour threshold	: No data available
pH	: 13.3 – 13.6
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 220 F
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: 24 mm Hg
Relative vapour density at 20 °C	: No data available
Relative density	: 1.4
Solubility	: Soluble in water
Partition coefficient n-octanol/water	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong Acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release toxic or corrosive products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified.
Acute toxicity (dermal)	: Not classified.
Acute toxicity (inhalation)	: Not classified.

Sodium hydroxide (1310-73-2)	
LD50 oral rabbit	1350 mg/kg (Rabbit; Literature)
ATE US (dermal)	1350.000 mg/kg body weight
Potassium hydroxide (1310-58-3)	
LD50 oral rat	273 mg/kg (Rat)
ATE US (oral)	273.000 mg/kg body weight

Skin corrosion/irritation	: Causes severe skin burns and eye damage pH: 13.3 – 13.6
Serious eye damage/irritation	: Causes serious eye damage. pH: 13.3 – 13.6
Respiratory or skin sensitisation	: Not classified.

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Germ cell mutagenicity	: Not classified.
Carcinogenicity	: Not classified.
Reproductive toxicity	: Not classified.
STOT-single exposure	: Not classified.
STOT-repeated exposure	: Not classified.
Aspiration hazard	: Not classified.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life

Sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (96 h; <i>Salmo gairdneri</i> (<i>Oncorhynchus mykiss</i>); Solution \geq 50%)
EC50 Daphnia 1	40.4 mg/l (48 h; <i>Ceriodaphnia</i> sp.; Nominal concentration)
LC50 fish 2	189 mg/l (48 h; <i>Leuciscus idus</i>)
TLM fish 1	99 mg/l (48 h; <i>Lepomis macrochirus</i>)
TLM fish 2	125 ppm (96 h; <i>Gambusia affinis</i>)
Potassium hydroxide (1310-58-3)	
LC50 fish 1	28.6 mg/l (24 h; Pisces; Pure substance)
LC50 other aquatic organism 1	100 – 1000 mg/l (96 h)
LC50 fish 2	80 mg/l (96 h; <i>Gambusia affinis</i> ; Pure substance)
Threshold limit other aquatic organism 1	100 – 1000, 96 h

12.2. Persistence and degradability

Liquid Circulation Cleaner	
Persistence and degradability	Not established.
Sodium hydroxide (1310-73-2)	
Persistence and degradability	Not established.
Potassium hydroxide (1310-58-3)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Liquid Circulation cleaner	
Bioaccumulative potential	Not established.
Sodium hydroxide (1310-73-2)	
Bioaccumulative potential	Not established
Potassium hydroxide (1310-58-3)	
Bioaccumulative potential	Not bioaccumulative

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose of contents/container in accordance with local/national regulations.

SECTION 14: Transport information

Department of Transportation (DOT)

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In accordance with DOT
UN-No. (DOT) UN1824
Proper Shipping Name (DOT) : Sodium hydroxide solution
Class (DOT) : 8
Packing Group (DOT) : II
Hazard labels (DOT) :



SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listin, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) Inventory

15.2. Internal regulations

No additional information available

15.3. US State regulations

California Proposition 65 – This product does not contain any substances known to the State of California to cause cancer, developmental and/or reproductive harm.

SECTION 16: Other information

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Other information None

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