Liqui-Thaw

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 04/15/2015

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : Liqui-Thaw

Product code : 155-33405

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

Use of the substance/mixture : De-icer

1.3. Details of the supplier of the safety data sheet

American Cleaning Solutions
39-30 Review Avenue
Long Island City, NY 11101
T (718) 392-8080

1.4. Emergency telephone number

Emergency number : INFOTRAC: 800-535-5053

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Acute Tox. 4 (Oral)	H302 -	Harmful if swallowed
Skin Corr. 1A	H314 -	Causes severe skin burns and eye damage
Eye Irrit. 2A	H319 -	Causes serious eye irritation

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS05 GHS07

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) :
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H319 - Causes serious eye irritation

Precautionary statements (GHS-US) :
P260 - Do not breathe dust/mist/spray
P264 - Wash hands and forearms thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P280 - Wear protective gloves/eye protection/face protection
P301+P312 - If swallowed: Call a poison center/doctor if you feel unwell
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a poison center/doctor
P321 - Specific treatment (see First aid measures on this label)
P330 - Rinse mouth
P337+P313 - If eye irritation persists: Get medical advice/attention
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
Ethylene Glycol	(CAS No) 107-21-1	30 - 50	Acute Tox. 4 (Oral), H302
Calcium chloride	(CAS No) 10043-52-4	10 - 20	Eye Irrit. 2A, H319
2-propanol	(CAS No) 67-63-0	1 - 5	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.

First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a poison center or doctor/physician.

First-aid measures after eye contact : 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/physician. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor/physician if you feel unwell. Immediately call a poison center or doctor/physician.

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

Symptoms/injuries : Causes severe skin burns and eye damage.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Reactivity : Thermal decomposition generates : corrosive vapors.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Do not breathe dust/mist/spray. Avoid contact during pregnancy/while nursing.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations.

Storage conditions : Keep only in the original container in a cool, well ventilated place away from heat, hot surfaces, sparks, open flame and other ignition sources. No smoking. Keep container closed when not in use.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

2-propanol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm (2-propanol; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	400 ppm (2-propanol; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	Eye & URT irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm

Ethylene Glycol (107-21-1)		
ACGIH	ACGIH Ceiling (mg/m³)	100 mg/m³ (Ethylene glycol; USA; Momentary value; TLV - Adopted Value)

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear protective gloves/eye protection/face protection protective gloves.

Eye protection : Chemical goggles or face shield.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : Wear appropriate mask.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Color : clear

Odor : mild

Odor threshold : No data available

pH : 13

Melting point : No data available

Freezing point : No data available

Boiling point : 212 - 220 °F

Flash point	:	≥ 200 °F
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
Vapor pressure	:	No data available
Relative density	:	1.124
Relative vapor density at 20 °C	:	≥ 1
Solubility	:	Soluble in water. Water: Solubility in water of component(s) of the mixture : • : 74.5 g/100ml • : • : • :
Log Pow	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Thermal decomposition generates : corrosive vapors.

10.2. Chemical stability

Stable under normal conditions. Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

Fume. Carbon monoxide. Carbon dioxide. Thermal decomposition generates : corrosive vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Liqui-Thaw	
ATE US (oral)	1566.907 mg/kg body weight

Calcium chloride (10043-52-4)	
LD50 oral rat	2301 mg/kg body weight (Rat; OECD 401: Acute Oral Toxicity; Experimental value)
LD50 dermal rabbit	> 5000 mg/kg body weight (Rabbit; Experimental value; Other)
ATE US (oral)	2301.000 mg/kg body weight

2-propanol (67-63-0)	
LD50 dermal rabbit	12870 mg/kg (Rabbit; Experimental value; Equivalent or similar to OECD 402; 16.4; Rabbit)
LC50 inhalation rat (mg/l)	73 mg/l/4h (Rat)
ATE US (dermal)	12870.000 mg/kg body weight
ATE US (vapors)	73.000 mg/l/4h
ATE US (dust, mist)	73.000 mg/l/4h

Ethylene Glycol (107-21-1)	
LD50 oral rat	> 5000 mg/kg (Rat; Literature study)
ATE US (oral)	500.000 mg/kg body weight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 13

Serious eye damage/irritation : Causes serious eye irritation.
pH: 13

Respiratory or skin sensitization : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

2-propanol (67-63-0)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met. Harmful if swallowed.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information

12.1. Toxicity

Calcium chloride (10043-52-4)	
Threshold limit algae 2	27000 mg/l (EC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Selenastrum capricornutum)

2-propanol (67-63-0)	
EC50 Daphnia 1	10000 mg/l (48 h; Daphnia magna)
LC50 fish 2	9640 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Pimephales promelas; Flow-through system; Fresh water; Experimental value)
EC50 Daphnia 2	13299 mg/l (EC50; Other; 48 h; Daphnia magna)
Threshold limit algae 1	> 1000 mg/l (EC50; UBA; 72 h; Scenedesmus subspicatus)

Ethylene Glycol (107-21-1)	
EC50 Daphnia 1	10000 mg/l (24 h; Daphnia magna)
LC50 fish 2	40761 mg/l (LC50; 96 h; Salmo gairdneri)

12.2. Persistence and degradability

Liqui-Thaw	
Persistence and degradability	Not established.

Calcium chloride (10043-52-4)	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

2-propanol (67-63-0)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	1.19 g O_2/g substance
Chemical oxygen demand (COD)	2.23 g O_2/g substance

2-propanol (67-63-0)	
ThOD	2.40 g O_2/g substance

Ethylene Glycol (107-21-1)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil.
Biochemical oxygen demand (BOD)	0.47 g O_2/g substance
Chemical oxygen demand (COD)	1.24 g O_2/g substance
ThOD	1.29 g O_2/g substance
BOD (% of ThOD)	0.36

12.3. Bioaccumulative potential

Liqui-Thaw	
Bioaccumulative potential	Not established.

Calcium chloride (10043-52-4)	
Bioaccumulative potential	Bioaccumulation: not applicable.

2-propanol (67-63-0)	
Log Pow	0.05 (Weight of evidence approach; Other; 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Ethylene Glycol (107-21-1)	
BCF fish 1	10 (BCF; 72 h)
BCF other aquatic organisms 1	0.21 - 0.6 (BCF)
BCF other aquatic organisms 2	190 (BCF; 24 h)
Log Pow	-1.34 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

2-propanol (67-63-0)	
Surface tension	0.021 N/m (25 °C)

Ethylene Glycol (107-21-1)	
Surface tension	0.048 N/m (20 °C)

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container in accordance with local/regional/national/international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Not regulated for transport

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Calcium chloride (10043-52-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

2-propanol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	

Ethylene Glycol (107-21-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb

15.2. International regulations

CANADA
No additional information available

EU-Regulations
No additional information available

National regulations
No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

Revision date : 04/15/2015

Other information : None.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Liq. 2	Flammable liquids Category 2
Skin Corr. 1A	Skin corrosion/irritation Category 1A
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness

HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible

Flammability : 0 Minimal Hazard - Materials that will not burn

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal Protection : B

B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product