



SAFETY DATA SHEET

CHROMATE INDUSTRIAL CORPORATION®
5250-A Naiman Parkway, Solon, OH 44139 • 888-567-2206 • www.chromate.com

**FOR CHEMICAL
EMERGENCY**

Call ChemTrec day/night:
1-800-424-9300

1. IDENTIFICATION

PRODUCT NAME: Ice & Frost Remover

DATE PREPARED: June 22, 2015

PART NUMBER: 74488

MANUFACTURER: CHROMATE INDUSTRIAL CORPORATION
5250-A Naiman Parkway, Solon, OH 44139 • www.chromate.com

PRODUCT/RECOMMENDED USES: Frost & Ice Remover

EMERGENCY TELEPHONE NUMBER OF THE COMPANY: (888) 567-2206

PRODUCT INFORMATION TELEPHONE NUMBER: (888) 567-2206

REGULATORY INFORMATION TELEPHONE NUMBER: (888) 567-2206

TRANSPORTATION EMERGENCY TELEPHONE NUMBER: (800) 424-9300

NATIONAL POISON CENTER: (800) 222-1222

2. HAZARDS IDENTIFICATION

Classification:

Specific target organ toxicity - single exposure - Category 1
Skin irritation - Category 3
Flammable Liquids - Category 3
Acute toxicity Dermal - Category 3
Aerosol - Category 1
Aquatic toxicity Oral - Category 3

Label elements:



Signal word:

Danger

Hazardous statements

Physical:

H226 - Flammable liquid and vapor.
H222, H229 - Extremely flammable aerosol, Pressurized container may burst if heated.

Health:

H370 - Causes damage to organs.
H301 - Toxic if swallowed.
H311 - Toxic in contact with skin.
H316 - Causes mild skin irritation.

2. HAZARDS IDENTIFICATION CONTINUED

Precautionary statements

General:	P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read label before use.
Prevention:	P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P280 - Wear protective gloves/protective clothing/eye protection/face protection. P260 - Do not breath dust/fume/gas/mist/vapors/spray. P264 - Wash thoroughly after handling. P211 - Do not spray on an open flame or other ignition source. P251 - Do not pierce or burn, even after use. P270 - Do not eat, drink or smoke when using this product.
Response:	P370 + P378 - In case of fire: Use water fog, dry chemical or carbon dioxide to extinguish. P308 + P311 - IF exposed or concerned: Call a POISON CENTER or doctor/physician. P301 + P310 + P330 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth. P302 + P361 + P364 + P332 + P313 - IF ON SKIN: Take off immediately all contaminated clothing. And wash it before reuse. If skin irritation occurs: Get medical advice/attention.
Storage:	P235 - Keep cool. P403 - Store in a well-ventilated place. P405 - Store locked up. P410 - Protect from sunlight. P412 - Do not expose to temperatures exceeding 50°C/122°F.
Disposal:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

CAS	Chemical Name	% by weight
0000067-56-1	METHANOL	45% - 79%
0000107-21-61	ETHYLENE GLYCOL	20% - 35%
0000124-38-9	CO2	2% - 4%

4 FIRST-AID MEASURES

Inhalation:	Remove source of exposure or move person to fresh air and keep comfortable for breathing. If exposed/feel unwell/concerned: Call a POISON CENTER/doctor. Eliminate all ignition sources if safe to do so.
Eye contact:	Remove source of exposure or move person to fresh air. Rinse eyes cautiously with lukewarm, gently flowing water for several minutes, while holding the eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing for a duration of 15-20 minutes. Take care not to rinse contaminated water into the unaffected eye or onto the face. If eye irritation persists: Get medical advice/attention.
Skin contact:	Take off immediately all contaminated clothing, shoes and leather goods (e.g. watchbands, belts). Gently blot or brush away excess product. Wash with plenty of lukewarm, gently flowing water for a duration of 15-20 minutes. Call a POISON CENTER/doctor if you feel unwell. Store contaminated clothing under water and wash before reuse or discard.
Ingestion:	Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. If vomiting occurs naturally, lie on your side, in the recovery position. Never give anything by mouth to an unconscious or convulsing victim. Keep person warm and quiet.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media:** Use water, fog, dry chemical, or carbon dioxide. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.
- Unsuitable extinguishing media:** Water may be ineffective but can be used to cool containers exposed to heat or flame.
- Specific hazards in Case of Fire:** Contents under pressure. Keep away from ignition sources and open flames. Exposure of containers to extreme heat and flames can cause them to rupture often with violent force. Aerosol cans may rupture when heated. Heated cans may burst. In fire, will decompose to carbon dioxide, carbon monoxide.
- Fire-fighting procedures:** Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapors and to protect personnel. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.
- Special protective actions:** Wear protective pressure self-contained breathing apparatus (SCBA) and full turnout gear. Care should always be exercised in dust/mist areas.

6. ACCIDENTAL RELEASE MEASURES

- Emergency procedure:** Flammable/combustible material. ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stay upwind; keep out of low areas. Immediately turn off or isolate any source of ignition. Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk through spilled material. Clean up immediately. Use absorbent sweeping compound to soak up material and put into suitable container for proper disposal.
- Recommended Equipment:** Positive pressure, full-face piece self-contained breathing apparatus (SCBA), or positive pressure supplied air respirator with escape SCBA (NIOSH approved).
- Personal precautions:** ELIMINATE all ignition sources (no smoking, flares, sparks, or flames in immediate area). Use explosion proof equipment. Avoid breathing vapor. Avoid contact with skin, eye or clothing. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing.
- Environmental precautions:** Stop spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems and natural waterways by using sand, earth, or other appropriate barriers.

7. HANDLING AND STORAGE

- General:** For industrial and institutional use only. For use by trained personnel only. Keep away from children. Wash hands after use. Do not get in eyes, on skin or on clothing. Do not breathe vapors or mists. Use good personal hygiene practices. Eating, drinking and smoking in work areas is prohibited. Remove contaminated clothing and protective equipment before entering eating areas. Eyewash stations and showers should be available in areas where this material is used and stored.
- Ventilation Requirements:** Use only with adequate ventilation to control air contaminants to their exposure limits. The use of local ventilation is recommended to control emissions near the source.
- Storage Room Requirements:** Keep container(s) tightly closed and properly labeled. Store in cool, dry, well-ventilated areas away from heat, direct sunlight and incompatibilities. Store in approved containers and protect against physical damage. Keep containers securely sealed when not in use. Indoor storage should meet OSHA standards and appropriate fire codes. Containers that have been opened must be carefully resealed to prevent leakage. Empty container retain residue and may be dangerous.
- Do not cut, drill, grind, weld, or perform similar operations on or near containers. Do not pressurize containers to empty them. Ground all structures, transfer containers and equipment to conform to the national electrical code. Use procedures that prevent static electrical sparks. Static electricity may accumulate and create a fire hazard.
- Store at temperatures below 120°F.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye Protection: Chemical goggles, safety glasses with side shields or vented/splash proof goggles. Contact lenses may absorb irritants. Particles may adhere to lenses and cause corneal damage.

Skin Protection: Wear gloves, long sleeved shirt, long pants and other protective clothing as required to minimize skin contact.

Use of gloves approved to relevant standards made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Chemical-resistant clothing is recommended to avoid prolonged contact. Avoid unnecessary skin contact.

Respiratory Protection: If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker, a respiratory protection program that meets or is equivalent to OSHA 29 CFR 1910.134 and ANSI Z88.2 should be followed. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapors.

When spraying more than one half can continuously or more than one can consecutively, use NIOSH approved respirator.

Section 8 continued on next page.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION CONTINUED

Chemical Name	OSHA TWA (ppm)	OSHA TWA (mg/m ³)	OSHA STEL (ppm)	OSHA STEL (mg/m ³)	OSHA Tables- Z1,2,3	OSHA Carcinogen	OSHA Skin designation
CO2	500	9000			1		
ETHYLENE GLYCOL							
METHANOL	200	260			1		

Chemical Name	NIOSH TWA (ppm)	NIOSH TWA (mg/m ³)	NIOSH STEL (ppm)	NIOSH STEL (mg/m ³)	NIOSH Carcinogen
CO2	5000	9000	30000	54000	
ETHYLENE GLYCOL					
METHANOL	200	260	250	325	

Chemical Name	ACGIH TWA (ppm)	ACGIH TWA (mg/m ³)	ACGIH STEL (ppm)	ACGIH STEL (mg/m ³)
CO2	5000	9000	30000	54000
ETHYLENE GLYCOL				C 100
METHANOL	200	262	250	328

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

Density:	7.09365 lb/gal
Density VOC:	4.73412 lb/gal
% VOC:	66.73748%
VOC Actual:	4.73412 lb/gal
VOC Actual:	567.29001 g/l
VOC Regulatory:	4.73412 lb/gal
VOC Regulatory:	567.29001 g/l
Appearance:	N.A.
Odor threshold:	N.A.
Odor description:	N.A.
pH:	N.A.
Water solubility:	Soluble
Flammability:	Flashpoint below 73°F
Flash point symbol:	N.A.
Flash point:	54°F
Viscosity:	N.A.
Lower explosion level:	6
Upper explosion level:	36
Melting point:	N.A.
Vapor density:	Slower than ether
Freezing point:	N.A.
Low boiling point:	100°F
High boiling point:	N.A.
Decomposition pt:	0
Auto-ignition temperature:	N.A.
Evaporation rate:	Slower than ether

N/A — NOT APPLICABLE

N/D — NOT DETERMINED

N/E — NONE ESTABLISHED

N/R — NOT REGULATED

N/L — NOT LISTED

10. STABILITY AND REACTIVITY

Stability:	Stable.
Conditions to avoid:	High temperatures.
Incompatible materials:	None known.
Hazardous reactions/polymerization:	Will not occur.
Hazardous decomposition products:	In fire, will decompose to carbon dioxide, carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Skin corrosion/irritation:	Overexposure will cause defatting of skin. Causes skin irritation.
Serious eye damage/eye irritation:	Overexposure will cause redness and burning sensation.
Carcinogenicity:	No data available.
Germ cell mutagenicity:	No data available.
Reproductive toxicity:	No data available.
Respiratory or skin sensitization:	No data available.
Specific target organ toxicity - single exposure:	Causes damage to organs.
Specific target organ toxicity - repeated exposure:	No data available.
Aspiration hazard:	No data available.

Acute toxicity: Inhalation: effects of overexposure include irritation of respiratory tract, headache, dizziness, nausea, and loss of coordination. Extreme overexposure may result in unconsciousness and possibly death.

0000067-56-1

METHANOL

LC50 (rat): 64000 ppm (4-hour exposure) (14, unconfirmed)
 LD50 (oral, rat): 5628 mg/kg (14, unconfirmed)
 LD50 (oral, 14-day old rat): 5850 mg/kg (cited as 7.4 mL/kg) (15)
 LD50 (oral, young adult rat): 10280 mg/kg (cited as 13.0 mL/kg) (15)
 LD50 (oral, monkey): 3000 mg/kg (1/1 animal died) (16)
 LD50 (dermal, rabbit): 15800 mg/kg (cited as 20 mL/kg) (17 citing unpublished information)

0000107-21-1

ETHYLENE GLYCOL

LD50 (oral, rat): 5.89 g/kg; 8.54 g/kg; 13.0 g/kg (5)
 LD50 (oral, mouse): 7.5 g/kg; 15.28 g/kg (5,6)
 LD50 (oral, guinea pig): 6.6 g/kg; 11.0 g/kg (5)
 LD50 (oral, rabbit): 5.0 g/kg (5)
 LD50 (dermal, rabbit): 9.5 g/kg (6)

Potential Health Effects - Miscellaneous

0000067-56-1

METHANOL

Increased susceptibility to the effects of this material may be observed in people with preexisting disease of any of the following: eyes, kidneys, liver, skin. Excessive human exposure to methanol may lead to: fatigue, headache, anaesthetic, neurologic effects, and visual difficulties including blindness or death. Recurrent overexposure may result in liver and kidney injury. Has been toxic to the fetus in laboratory animals at doses that are toxic to the mother. Ingestion may cause any of the following: blindness. Eye contact may cause any of the following: conjunctivitis, mild irritation, corneal opacity.

12. ECOLOGICAL INFORMATION

Toxicity: No data available.

Persistence and degradability: No data available.

Bio-accumulative potential: No data available.

Mobility in soil: No data available.

Other adverse effects: No data available.

Mobility in Soil

0000067-56-1 METHANOL

Will not adsorb on soil.

Persistence and Degradability

0000067-56-1 METHANOL

72% aerobic biodegradability.

13. DISPOSAL CONSIDERATIONS

Water disposal: Under RCRA, it is the responsibility of the user of the product, to determine the time of disposal whether the product meets RCRA criteria for hazardous waste. Waste management should be in full compliance with federal, state, and local laws.

Empty containers retain product residue which may exhibit hazards of material, therefore do not pressurize, cut, glaze, weld or use for any other purposes. Return drums to reclamation centers for proper cleaning and reuse.

14. TRANSPORT INFORMATION

U.S. DOT Information: Consumer Commodity, ORM-D

IMDG Information: Consumer Commodity, ORM-D

IATA Information: Consumer Commodity, ORM-D

15. REGULATORY INFORMATION

CAS	Chemical Name	% by weight	Regulation List
0000067-56-1	METHANOL	45% - 79%	CERLA, HAPS, SARA 312, SARA 313, VOC, TSCA, RCRA, ACGIH, CA_Prop65 - California Proposition 65, OSHA
0000107-21-1	ETHYLENE GLYCOL	20% - 35%	CERLA, HAPS, SARA 312, SARA 313, VOC, TSCA, ACGIH
0000124-38-9	CO2	2% - 4%	SARA 312, TSCA, ACGIH, OSHA

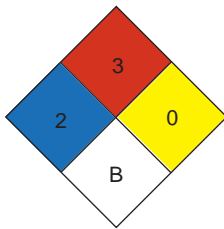
16. OTHER INFORMATION

Glossary:

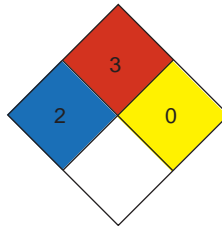
* There are points of differences between OSHA GHS and UN GHS. In 90% of the categories, they can be used interchangeably, but for the Skin Corrosion/Irritant Category and the Specific Target Organ Toxicity (Single and Repeated Exposure) Categories. In these cases, our system will say UN GHS.

ACGIH- American Conference of Governmental Industrial Hygienists; ANSI- American National Standards Institute; Canadian TDG - Canadian Transportation of Dangerous Goods; CAS- Chemical Abstract Service; Chemtrec- Chemical Transportation Emergency Center (US); CHIP- Chemical Hazard Information and Packaging; DSL- Domestic Substances List; EC- Equivalent Concentration; EH40 (UK)- HSE Guidance Note EH40 Occupational Exposure Limits; EPCRA- Emergency Planning and Community Right-To-Know Act; ESL- Effects screening levels; HMIS- Hazardous Material Information Service; LC- Lethal Concentration; LD- Lethal Dose; NFPA- National Fire Protection Association; OEL- Occupational Exposure Limits; OSHA- Occupational Safety and Health Administration, US Department of Labor; PEL- Permissible Exposure Limit; SARA (Title III)- Superfund Amendments and Reauthorization Act; SARA 313- Superfund Amendments and Reauthorization Act, Section 313; SCBA- Self-Contained Breathing Apparatus; STEL- Short Term Exposure Limit; TCEQ - Texas Commission on Environmental Quality; TLV- Threshold Limit Value; TSCA- Toxic Substances Control Act Public Law 94-469; TWA - Time Weighted Value; US DOT- US Department of Transportation; WHMIS- Workplace Hazardous Materials Information System.

HMIS



NFPA



Chronic:



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