

This Safety Data Sheet complies with the Canadian Hazardous Product Regulations, the United States Occupational Safety and Health Administration (OSHA) Hazard Communication Standard, 29 CFR 1910 (OSHA HCS), and the European Union Directives.

1. Product and Supplier Identification

- 1.1 **Product:** Mercon™ vap
- 1.2 **Other Means of Identification:** None
- 1.3 **Product Use:** Mercury Vapour Suppressant
- 1.4 **Restrictions on Use:** None known
- 1.5 **Producer:** *United States*
Ross Healthcare,
210 Duffner Drive, Suite A,
Lynden, Washington
USA, 98264
- Canada*
Ross Healthcare,
6 – 1520 Cliveden Avenue,
Delta, B.C.
Canada, V3M 6J8
- Telephone: 1-800-663-8303
Facsimile: +1-604-521-6695
URL: rosshc.org
- Supplier:** As above
- 1.6 **Emergencies:** 1-800-663-8303

2. Hazards Identification

2.1 Classification of product or mixture

Note to reader: This product in an untested mixture and GHS classification is based on the classification of the ingredients and their concentrations. Proprietary ingredients, if any, do NOT exhibit any health effects not listed in this SDS.

GHS Classification: Flammable Liquid, Category 3
Eye Irritant: Category 2A
Specific Target Organ Toxicity- Single Exposure, Category 3
Acute Aquatic Toxicity, Category 2
Chronic Aquatic Toxicity, Category 2

2.2 GHS Label Elements, including precautionary statements

Pictogram:



* Aquatic Toxicity not currently required in Canada

Signal Word: Warning

GHS Hazard Statements: H226: Flammable liquid and vapour
H319: Causes serious eye irritation
H335: May cause drowsiness or dizziness
H401: Toxic to aquatic life
H411: Toxic to aquatic life with long lasting effects

GHS Precautionary Statements:

Prevention: P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P240: Ground and bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use non-sparking tools.
P243: Take action to prevent static discharges.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P264: Wash... thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, eye and face protection

Response: P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or 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 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER/doctor...if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.
P370+P378: In case of fire use carbon dioxide, dry chemical. Use water to cool surrounding containers.
P391: Collect spillage.

Storage: P403+P233+P235: Store in a well-ventilated place. Keep container tightly closed.
P405: Store locked up.

Disposal: P501: Dispose of contents/containers in accordance with all applicable local, state (provincial), and federal regulations.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None.

2.4 Additional Information

Primary Routes of Entry:

Skin Contact:	Yes
Skin Absorption:	No
Eye Contact:	Yes
Ingestion:	Yes
Inhalation:	Yes

Emergency Overview: High vapor concentrations may cause headache, nausea, dizziness, in coordination and confusion.

Effects of Short-Term (Acute) Exposure:

Inhalation: Inhalation of vapours or mist may cause drowsiness or dizziness. Continued inhalation may cause nausea and headache. Coughing may occur if mists are inhaled but will subside when source of irritation is removed.

Skin Contact: Skin contact is unlikely to have any acute health effects.

Eye Contact: Direct contact with the eyes may produce severe eye irritation.

Ingestion: Although ingestion is not a typical route of entry, consumption may be a possible reproduction hazard. Ingestion of large quantities may cause minor gastrointestinal discomfort.

Effects of Long-Term (Chronic) Exposure:

For persons who have sensitive skin, or who are pre-disposed to skin problems, prolonged contact may result in minor rash. Chronic exposure to isopropyl alcohol may be a reproduction hazard. No other chronic health effects anticipated.

Medical Conditions Aggravated By Exposure: None known.

3. Composition

3.1 Mixture composition

Component	GHS Classification	% (w/w)	Exposure Limits (ACGIH)*	LD ₅₀	LC ₅₀
1,2 Propylene Glycol CAS No 57-55-6 EC No 200-338-0	None	50 - 65	N/d	20000 mg/kg (oral/rat) 20800 mg/kg (dermal/rabbit)	N/av
Isopropanol CAS No 67-63-0 EC No 200-661-7	Flammable Liquid Category 2; Eye Irritation Category 2A; STOT-SE, Category 3 CNS	8 - 10	*TLV-TWA: 200 ppm CNS impairment Respiratory tract irritation Eye irritation TLV-STEL: 400 ppm	5045 mg/kg (oral/rat) 12800 mg/kg (dermal/rabbit)	16000 ppm (Inh, rat/ 8 hr)
Ammonium Chloride CAS No 12125-02-9 EC No 235-186-4	Acute Toxicity, Oral, Category 4 Eye Irritation, Category 2A Acute Aquatic 2, Chronic 2	1 - 3	*TLV-TWA: 10 mg/m ³ TLV-STEL: 20 mg/m ³ Eye and Upper Respiratory Tract	1650 mg/kg (oral/rat)	N/av
Copper Sulphate CAS No 7758-98-7 EC No 231-847-6	Acute Toxicity, Oral Category 4 Skin Irritant, Category 2, Eye Irritant, Category 2A Aquatic Acute 1, Chronic 1	0.1-0.4	TWA, NIOSH Recommended Exposure Limits 1.0 mg/m ³	482 mg/kg (oral/rat)	N/av
Non-hazardous ingredients or those below disclosure requirements		25 - 42	N/d	N/d	N/d
GHS CLASSIFICATION for Product: FLAM LIQUID, Cat 3, EYE IRR, Cat 2A, STOT-SE, Category 3, CNS, ACUTE AQUA TOX, Cat 1, CHRONIC AQUA TOX, Cat 1					

* ACGIH: American Conference of Governmental Industrial Hygienists. Exposure limits may vary from time to time and from one jurisdiction to another. Check with local regulatory agency for the exposure limits in your area.

ABBREVIATION KEY: N/p: not published, N/d: not determined, N/ap: not applicable, N/av: not available

4. First Aid Measures

4.1 Description of First Aid Measures

General advice: Handle this material with good hygiene practices to prevent medical issues. This product contains ingredients with known toxicity but in small quantities. Ingestion of small quantities may not produce critical health effects but follow directions below for ingestion. Gross ingestion must be treated with expeditious medical treatment.

In case of eye contact: Rinse cautiously with water for 15 minutes, holding eyelids open. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if irritation persists.

In case of skin contact: Wash affected area immediately with mild soap and water and continue for 15 minutes. If irritation persists, seek immediate medical attention. Remove any contaminated clothing and launder clothing before reuse. Take off immediately all contaminated clothing. Rinse skin with water [or shower].

If inhalation: If victim has been exposed to mist or vapors, remove to fresh air and keep comfortable for breathing. If breathing has stopped, a trained person should perform artificial respiration. Get medical attention immediately.

If ingestion: Do not induce vomiting. Never give anything by mouth to an unconscious person. If conscious, give 240-300 ml of water to dilute material. If vomiting occurs naturally, have victim lean forward with head between knees to reduce risk of aspiration. Call a POISON CENTER/doctor...if you feel unwell.

4.2 Most important symptoms and effects, both acute and delayed

Effects of Short-Term (Acute) Exposure:

Inhalation: Inhalation of vapours or mist may cause drowsiness or dizziness. Continued inhalation may cause nausea and headache. Coughing may occur if mists are inhaled but will subside when source of irritation is removed.

Skin Contact: Skin contact is unlikely to have any acute health effects.

Eye Contact: Direct contact with the eyes may produce severe eye irritation.

Ingestion: Although ingestion is not a typical route of entry, consumption may be a possible reproduction hazard. Ingestion of large quantities may cause minor gastrointestinal discomfort.

Effects of Long-Term (Chronic) Exposure:

For persons who have sensitive skin, or who are pre-disposed to skin problems, prolonged contact may result in minor rash. Chronic exposure to isopropyl alcohol may be a reproduction hazard. No other chronic health effects anticipated.

Medical Conditions Aggravated By Exposure: None known.

4.3 Indication of any immediate medical attention and special treatment needed

In the case of accidental ingestion, it is important to get treatment immediately.

5. Fire Fighting Measures

5.1 Extinguishing Media

Suitable extinguishing media: Use carbon dioxide, dry chemical or alcohol resistant foam.

5.2 Special hazards arising from mixture: No data available.

Advice for firefighters: Evacuate area and fight fire from a safe distance or a protected location. Approach fire from upwind to avoid hazardous vapors and toxic decomposition products. Do not enter confined fire space without proper personal protection. Use approved positive pressure self-contained breathing apparatus. If possible, isolate materials not yet involved in the fire, and move containers from fire area if this can be done without risk, and protect personnel. Otherwise, fire-exposed containers or tanks should be cooled by application of hose streams and this should begin as soon as possible and should concentrate on any unwetted portions of the container

5.3 Further Information:

Sensitivity to Impact: No
Sensitivity to Static Discharge: No

HAZARDOUS MATERIALS INFORMATION SYSTEM (HMIS) HAZARD INDEX:
HEALTH: 2
CHRONIC: *
FLAMMABILITY: 2
PHYSICAL: 0

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

All spill responders involved in a cleanup of this product must follow good industrial hygiene practices. Use personal protective equipment. Avoid breathing vapours, mist or gas. If used indoors, ensure adequate ventilation. Extinguish all sources of ignition. Absorb spilled material on inert absorbent and shovel into approved containers, properly labeled for disposal.

Respiratory Protection: To avoid inhaling vapours, mist or gas. Use NIOSH approved respirator with organic vapour cartridge.

Skin protection: Wear suitable protective equipment to prevent skin contact.

Eye and Face Protection: If use may cause splashing or misting, wear chemical goggles or full face protection.

Footwear: No specific recommendation.

Other: None

6.2 Environmental precautions

This product contains >0.1% of an ingredient classified as a Category 1 Acute and Chronic Aquatic Toxicant. Ensure that spilled material does not enter sewers or natural waterways.

6.3 Methods and materials for containment and cleanup

Immediately remove all sources of heat/ignition. Clean up spills immediately to protect the environment from entry into sewers or water courses. Absorb onto inert material and scoop or shovel up material place in an appropriate, properly labeled container for disposal.

Remedial Measures: Do not use unprotected hands to collect spilled material. Ensure proper protective equipment is used to prevent contact with skin and eyes.

Large Spills: Contain spillage and stop leak, if safe to do so. Use inert absorbent and scoop or shovel into properly labeled containers for disposal.

Small Spills: Scoop or shovel up material place in an appropriate container for disposal, as above.

6.4 Reference to other sections

For disposal, see Section 13.

7. Handling and Storage

7.1 Precautions for safe handling

Handling Procedures: Keep container tightly closed when not in use. Avoid methods of use that will cause misting of product. Launder clothing before reuse. Wash face and hands thoroughly after handling and before eating, drinking, or using tobacco products. Keep from freezing.

7.2 Conditions for safe storage, including incompatibilities

Storage: Keep out of reach of children. Store away from incompatible materials such as strong oxidizers, acid anhydrides, halogenated compounds, acid chlorides, acids and chloroformates. Store in cool, dry place and in an upright position to prevent leakage.

In bulk storage areas, post "NO SMOKING" signs. Have appropriate fire extinguishers located in an accessible place near storage area. Keep containers closed when not in use.

7.3 Specific end use(s)

No other uses except those mentioned in Section 1.2

8. Exposure Controls, Personal Protection

8.1 Control parameters

Components with workplace control parameters

<i>1,2-Propylene Glycol</i> , CAS No 57-55-6	10 mg/m ³ USA, WEEL (Workplace Environmental Exposure Limits
<i>Isopropanol</i> , CAS No 67-63-0	200 ppm, USA, ACGIH TLV-TWA 400 ppm, USA, ACGIH TLV-STEL
<i>Ammonium Chloride</i> , CAS No 12125-02-9	10 mg/m ³ , USA, ACGIH TLV-TWA 20 mg/m ³ , USA, ACGIH TLV-STEL
<i>Copper Sulphate</i> , CAS No 7758-98-7	1 mg/m ³ , USA NIOSH Recommended Exposure Limits, TWA

8.2 Exposure Controls

Engineering Controls: Under manufacturer's recommended use, no particular engineering controls required. If use causes workplace control parameters to be reached, use adequate ventilation to reduce concentrations in air.

Respiratory Protection: Where risk assessment indicates that air-purifying respirators are required, use a full-face respirator with organic vapour cartridges as a backup to ventilation. Use only NIOSH approved respirators.

Skin protection: Handle with nitrile rubbers gloves. Inspect gloves for holes or excessive wear before using. When removing gloves, care must be taken to prevent skin contact by touching external surface of the glove.

Eye and Face Protection: Use safety glasses or full face shield.

Footwear: No specific recommendation.

Other: None

Control of environmental exposure

None

9. Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Brown liquid
Odour:	Slight alcohol
Odour Threshold:	Not applicable
pH:	Not applicable
Melting Point/Freezing Point:	-89.5°C (Isopropanol)
Initial Boiling Point:	82.0°C (Isopropanol)
Flash Point:	42°C (PMCC)
Evaporation Rate:	3.0 (n-Butyl acetate=1)
Flammability:	Flammable liquid, Category 3
Upper Explosion Limit:	12.7% (Isopropanol)
Lower Explosion Limit:	2% (Isopropanol)
Vapour Pressure:	43.2 hPa @ 20°C, 58.7 @ 25°C (Isopropanol)
Vapour Density:	Not available
Relative Density:	1.1 @ 24°C (water = 1)
Solubility:	Soluble in all concentrations
Partition Coefficient:	log Pow: 0.05 (Isopropanol)
Autoignition Temperature:	399°C
Decomposition Temperature:	Not available
Viscosity:	Not available
Explosive Properties:	Not available
Oxidizing Properties:	Not available
Percent Volatiles:	Not available

9.2 Other safety information: None

10. Stability and Reactivity

10.1 Reactivity

This product is non reactive.

10.2 Chemical Stability

Stable under recommended storage conditions. Storage should be in a dry, clean area away from incompatible materials, sources of ignition and heat.

10.3 Possibility of hazardous reactions

Vapours may form explosive concentrations in air.

10.4 Conditions to avoid

Heat, sparks, flames, sources of ignition which may initiate burning. Keep away from incompatible materials.

10.5 Incompatible materials

Strong oxidizing agents, acid anhydrides, halogenated compounds, acid chlorides, acids and chloroformates.

10.6 Hazardous decomposition products

Oxides of carbon, sulphur, copper. Aldehydes and/or ketones.

11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

No GHS classification

Skin corrosion/irritation

No GHS classification

Serious eye damage/eye irritation

Eye Irritant, Category 2A, H319: Causes serious eye irritation

Respiratory or skin sensitization

No GHS classification

Germ Cell Mutagenicity

No GHS classification

Carcinogenicity

No GHS classification

Reproductive toxicity

No GHS classification

Specific Target Organ Toxicity – Single exposure

Specific Target Organ Toxicity- Single Exposure, Category 3, CNS

Specific Target Organ Toxicity – Repeated exposure

No GHS classification

Aspiration Hazard

No GHS classification

Aquatic Toxicity

Acute Aquatic Toxicity, Category 1, H401: Toxic to aquatic life

Chronic Aquatic Toxicity, Category 1, H411: Toxic to aquatic life with long lasting effects

Additional information

None

12. Ecological Information

12.1 Toxicity

Aquatic, Acute Aquatic Toxicity, Category 1

Aquatic, Chronic Aquatic Toxicity, Category 1

<i>1,2-Propylene Glycol:</i>	Fish	Mortality NOEC:	Pimephales promelas (fathead minnow), 52930 mg/l, 96 hr
	Invertebrates	Mortality NOEC:	Daphnia (water flea) 13020 mg/l, 48 hr
<i>Isopropanol:</i>	Fish	EC ₅₀ :	Daphnia (water flea) >10000 mg/l, 48 hr
		LC ₅₀ :	Pimephales promelas (fathead minnow), 9640 mg/l, 96 hr
	Invertebrates	EC ₅₀ :	Daphnia (water flea) 5102 mg/l, 24 hr
		Algae	EC ₅₀ :
<i>Ammonium Chloride:</i>	Fish	LC ₅₀ :	Cyprinus carpio (Carp) 209 mg/l, 96 hr
		LC ₅₀ :	Oncorhynchus mykiss (rainbow trout), 3.98 mg/l, 96 hr
	Invertebrates	NOEC:	Oncorhynchus mykiss (rainbow trout), 57 mg/l, 96 hr
		LC ₅₀ :	Daphnia (water flea) 161 mg/l, 48 hr
<i>Copper Sulphate:</i>	Fish	LC ₅₀ :	Fish species not identified. 1.0 mg/l, 96 hr
	Invertebrates	EC ₅₀ :	Immobilization, Daphnia (water flea) 0.024 mg/l, 48 hr
		LC ₅₀ :	Pond Snails, 0.39 mg/l, 96 hr

- 12.2 Persistence and degradability**
No data available
- 12.3 Bioaccumulative potential**
No data available
- 12.4 Mobility in soil**
No data available
- 12.5 Results of PBT and vPvB assessment**
Not conducted
- 12.6 Other adverse effects**
No data available

13. Disposal Considerations

13.1 Waste treatment methods

Product:

Dispose of product according to all applicable local, state (provincial), and federal regulations. Offer to a licensed disposal company, properly contained and labeled.

Contaminated Packaging:

As above. Ensure all packagings are leakproof and properly labeled.

14. Transport Information

Transport of Dangerous Goods (TDG and CLR): UN 1993, FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, PG III

Note: As per Part 1.33 of the Canadian Transportation of Dangerous Goods regulations (TDG), this product is exempt for transport if shipped in small means of containment.

United States Department of Transport (49CFR): UN 1993, FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, PG III

International Air Transport Association (IATA): UN 1993, FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, PG III

International Maritime Organization (IMO): UN 1993, FLAMMABLE LIQUID, N.O.S. (Isopropanol), Class 3, PG III, Flash Point = 42°C, EmS No F-E, S-E, Stowage Category "A"

15. Regulatory Information

CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: Listed

AMERICAN FEDERAL REGULATIONS:

TSCA: (Toxic Substance Control Act): Listed

SARA 302 Extremely hazardous substance: No ingredients listed

SARA 311/312 Hazardous chemical: Fire Hazard, Acute Health Hazard, Chronic Health Hazard

SARA 313 (TRI reporting): *Isopropanol*, CAS No 67-63-0 Rev Date 1987-01-01
Copper Sulphate, CAS No 7758-98-7 Rev Date 1993-04-24

Other State Regulations:

Massachusetts Right to Know Components:

Isopropanol, CAS No 67-63-0 Rev Date 1987-01-01
Copper Sulphate, CAS No 7758-98-7 Rev Date 1993-04-24
Ammonium Chloride, CAS No 12125-02-9 Rev Date 1994-04-01

Pennsylvania Right to Know Components:

Isopropanol, CAS No 67-63-0 Rev Date 1987-01-01
1,2-Propylene Glycol, CAS No 57-55-6 Rev Date 2007-03-01
Copper Sulphate, CAS No 7758-98-7 Rev Date 1993-04-24
Ammonium Chloride, CAS No 12125-02-9 Rev Date 1994-04-01

New Jersey Right to Know Components:

Isopropanol, CAS No 67-63-0 Rev Date 1987-01-01
1,2-Propylene Glycol, CAS No 57-55-6 Rev Date 2007-03-01
Copper Sulphate, CAS No 7758-98-7 Rev Date 1993-04-24
Ammonium Chloride, CAS No 12125-02-9 Rev Date 1994-04-01

California Prop 65 Components: This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

OTHER:

None

16. Other Information

Original Preparation Date: October 20, 2016

Prepared by: K.J. Pearson, BC Hazmat Management Ltd., 6 – 10114 McDonald Park Road, Sidney, B.C., V8L 5X8

Disclaimer: This Safety Data Sheet (SDS) was prepared using information provided by CCINFO, ingredient supplier SDS and other relevant sources. This product has been classified using weight of evidence, expert judgment and previous testing as per Part 1.3 of the Fifth Edition of The Globally Harmonized System of Classification and Labeling of Chemicals (GHS). The information in this SDS is offered for your consideration and guidance when exposed to this product. Ross Healthcare Inc. expressly disclaims all expressed or implied warranties and assumes no responsibilities for the accuracy or completeness of the data contained herein. The data in this SDS does not apply to use with any other product or in any other process.

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