

Revision Date 08/08/2013
Revision 7
Supersedes Date 07/05/2013



SAFETY DATA SHEET

VDX - VDX DRY LUBRICANT SPRAY, AEROSOL

1. IDENTIFICATION

Product Name VDX - VDX DRY LUBRICANT SPRAY, AEROSOL
Product No. MCC-VDX
Identification No. UN1950
Identified uses Lubricant.
Supplier MicroCare Corporation
 595 John Downey Drive
 New Britain, CT 06019
 United States of America
 Toll Free: 1-800-638-0125
 Tel: 1-860-827-0626
 Web: www.MicroCare.com
 email: techsupport@microcare.com

www.MicroCare.com

Emergency Telephone CHEMTREC (800) 424-9300

2. HAZARD(S) IDENTIFICATION

EMERGENCY OVERVIEW

White / off-white. Creamy liquid. Odor of alcohol. Aerosol. This product is not flammable. Liquid may irritate the skin. Spray and vapor in the eyes may cause irritation and smarting. No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation. Keep out of the reach of children.

Appearance Liquid Gas Aerosol.
Color White / off-white. Waxy
Odor Slight odor of alcohol.

GHS Pictogram
 No pictogram required.

Precautionary Statements

P102	Keep out of reach of children.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P410+412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122° F.

GHS Classification

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS

WHMIS Label



Compressed Gas.



Materials Causing Other Toxic Effects.

VDX - VDX DRY LUBRICANT SPRAY, AEROSOL**Controlled Product Classification**

Canadian WHMIS Classification A D2B Domestic Substance List WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (CPR SECTION (33)) This product has been classified according to the hazard criteria of the Controlled Product Regulations, and the MSDS contains all required information.

Human Health

Prolonged skin contact may cause redness, irritation and dry skin. Mild dermatitis, allergic skin rash.

Inhalation

Vapors may irritate the respiratory system and cause coughing, asthmatic breathing and breathlessness.

Ingestion

May cause stomach pain or vomiting. May cause nausea, headache, dizziness and intoxication.

Skin Contact

Acts as a defatting agent on skin. May cause cracking of skin, and eczema.

Eye Contact

May cause temporary eye irritation.

Medical Symptoms

High concentrations of vapors may irritate respiratory system and lead to headache, fatigue, nausea and vomiting.

Other Health Effects

This substance has no evidence of carcinogenic properties.

Physical And Chemical Hazards

Vapors are heavier than air and may travel along the floor and in the bottom of containers. Considering the limited amount applied during use and the size of the container, the risk of adverse effects is considered small. Gas or vapor displaces oxygen available for breathing (asphyxiant).

3. COMPOSITION/INFORMATION ON INGREDIENTS

HFC-134a Tetrafluoroethane	90-100%
CAS No.: 811-97-2	EC No.: 212-377-0
GHS Classification Not classified.	
Poly-tfe,omega-hydro-alpha-(methylcyclohexyl)	1-5%
CAS No.: 65530-85-0	EC No.:
GHS Classification Not classified.	
PROPAN-2-OL	5-10%
CAS No.: 67-63-0	EC No.: 200-661-7
GHS Classification Flam. Liq. 2 - H225; Eye Irrit. 2 - H319; STOT SE 3 - H336	

4. FIRST-AID MEASURES**Description of first aid measures****General Information**

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Place unconscious person on the side in the recovery position and ensure breathing can take place. Perform artificial respiration if breathing has stopped. Consult a physician for specific advice.

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Inhalation

Remove victim immediately from source of exposure. Move into fresh air and keep at rest. If respiratory problems, artificial respiration/oxygen. Get medical attention.

Ingestion

Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Do not give victim anything to drink if he is unconscious. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Get medical attention.

Skin Contact

Remove contaminated clothes and rinse skin thoroughly with water.

Eye Contact

Promptly wash eyes with plenty of water while lifting the eye lids. Make sure to remove any contact lenses from the eyes before rinsing. Consult a physician for specific advice.

Most important symptoms and effects, both acute and delayed

General Information

The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

Inhalation

Coughing, chest tightness, feeling of chest pressure. In high concentrations, vapors are anaesthetic and may cause headache, fatigue, dizziness and central nervous system effects.

Ingestion

Contact with liquid form may cause frostbite. May cause nausea, headache, dizziness and intoxication.

Skin Contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Contact with liquid form may cause frostbite.

Eye Contact

Extreme irritation of eyes and mucous membranes, including burning and tearing. Irritation and redness followed by blurred vision.

Indication of any immediate medical attention and special treatment needed

Notes To The Physician

No recommendation given, but first aid may still be required in case of accidental exposure, inhalation or ingestion of this chemical. If in doubt, GET MEDICAL ATTENTION PROMPTLY!

5. FIRE-FIGHTING MEASURES

Flammability Limit - Lower(%)

Not determined.

Flammability Limit - Upper(%)

Not determined.

Extinguishing Media

This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Unusual Fire & Explosion Hazards

Aerosol containers can explode when heated, due to excessive pressure build-up.

Specific Hazards

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

Special Fire Fighting Procedures

Move container from fire area if it can be done without risk.

Protective Equipment For Fire-Fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Warn everybody of potential hazards and evacuate if necessary. Ventilate well, avoid breathing vapors. Use approved respirator if air contamination is above accepted level.

Environmental Precautions

Contain spillages with sand, earth or any suitable adsorbent material. Avoid release to the environment.

Spill Clean Up Methods

Provide ventilation and confine spill. Do not allow runoff to sewer. Wear necessary protective equipment. Extinguish all ignition sources. Avoid sparks, flames, heat and smoking. Ventilate. Collect with absorbent, non-combustible material into suitable containers.

Reference to other sections

For personal protection, see section 8. For waste disposal, see section 13.

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7. HANDLING AND STORAGE

Handling

Provide good ventilation. Avoid inhalation of vapors/spray and contact with skin and eyes. In case of spills, beware of slippery floors and surfaces. Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed. Keep out of the reach of children.

Storage

Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Usage Description

Lubricant.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

COMPONENT	STD	TWA (8-hrs)		STEL (15 min)		Notes
PROPAN-2-OL	ACGIH	200 ppm		400 ppm		A4
PROPAN-2-OL	PEL	400 ppm	980 mg/m ³			
COMPONENT						IDLH
PROPAN-2-OL						2000 ppm

ACGIH=American Conference of Governmental Industrial Hygienists.

A4: Not Classifiable as a Human Carcinogen.

Ingredient Comments

WEL = Workplace Exposure Limits ACGIH = US Standard.

Protective Equipment



Engineering Measures

No specific ventilation requirements noted, except this product must not be used in a confined space without good ventilation.

Respiratory Equipment

Considering the size of the packaging, the risk is regarded as minimal. Vapors are heavier than air and may travel along the floor and in the bottom of containers. At work in confined or poorly ventilated spaces, respiratory protection with air supply must be used.

Self-contained breathing apparatus with full facepiece.

Hand Protection

For prolonged or repeated skin contact use suitable protective gloves. Gloves of nitrile rubber, PVA or Viton are recommended.

Eye Protection

Wear approved, tight fitting safety glasses where splashing is probable.

Other Protection

Wear suitable protective clothing as protection against splashing or contamination.

Hygiene Measures

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals. When using do not eat, drink or smoke.

Skin Protection

Wear apron or protective clothing in case of splashes.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Liquid Gas Aerosol.
Color	White / off-white. Waxy
Odor	Slight odor of alcohol.
Solubility	Slightly soluble in water.

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Initial boiling point and boiling range	-26.5 (C) / -15.7 (F)
Vapor density (air=1)	3.18 @ 25 (C) / 77 (F)
Vapor pressure	4972 mm Hg 16.7 (C) / 62 (F)
Flammability Limit - Lower(%)	
Not determined.	
Flammability Limit - Upper(%)	
Not determined.	
Other Flammability	
This product is not flammable.	
Physical Data Comments	Aerosol.
Particle Size (Micron)	1-15 micron
Volatility Description	Volatile
Volatile By Vol. (%)	98.5
Flammability	This product is not flammable.

10. STABILITY AND REACTIVITY

Reactivity

No specific reactivity hazards associated with this product.

Stability

Stable under normal temperature conditions and recommended use.

Hazardous Polymerisation

Will not polymerise.

Conditions To Avoid

Avoid contact with naked flames and hot surfaces as corrosive and toxic decomposition products can be formed.

Materials To Avoid

Alkali metals. Alkali earth metals. Powdered metal.

Hazardous Decomposition Products

When heated, toxic and corrosive vapors/gases may be formed. Halogenated hydrocarbons. Hydrogen fluoride (HF). Carbon dioxide (CO₂). Carbon monoxide (CO).

11. TOXICOLOGICAL INFORMATION

Other Health Effects

This substance has no evidence of carcinogenic properties.

Toxicological Information on Ingredients:

PROPAN-2-OL (CAS: 67-63-0)

Toxic Dose 1 - LD 50

5045 mg/kg (oral rat)

Toxic Dose 2 - LD 50

3600 mg/kg (oral-mouse)

Toxic Conc. - LC 50

16, 000 ppm/1h (inh-rat)

HFC-134a Tetrafluoroethane (CAS: 811-97-2)

Toxic Dose 1 - LD 50

>2085 mg/kg (oral rat)

Other Health Effects

This substance has no evidence of carcinogenic properties.

Poly-tfe.omega-hydro-alpha-(methylcyclohexyl) (CAS: 65530-85-0)

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product contains substances which contribute to global warming (greenhouse effect).

LC 50, 96 Hrs, Fish mg/l 450 mg/L

EC 50, 48 Hrs, Daphnia, mg/l 980 mg/L

VDX - VDX DRY LUBRICANT SPRAY, AEROSOL**Degradability**

The product is not expected to be biodegradable.

Bioaccumulative potential

No data available on bioaccumulation.

Mobility:

The product contains volatile substances, which may spread in the atmosphere.

Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB Substances.

Other adverse effects

The product contains substances which contribute to global warming (greenhouse effect).

Ecological Information on Ingredients:**PROPAN-2-OL (CAS: 67-63-0)**

LC 50, 96 Hrs, Fish mg/l

9,640

EC 50, 48 Hrs, Daphnia, mg/l

5102

IC 50, 72 Hrs, Algae, mg/l

>2,000

HFC-134a Tetrafluoroethane (CAS: 811-97-2)

LC 50, 96 Hrs, Fish mg/l

450

EC 50, 48 Hrs, Daphnia, mg/l

980

13. DISPOSAL CONSIDERATIONS**Waste Management**

Recover and reclaim or recycle, if practical. Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

Disposal Methods

Dispose of waste and residues in accordance with local authority requirements. Empty containers must not be burned because of explosion hazard. Aerosol containers can explode when heated, due to excessive pressure build-up. Recover and reclaim or recycle, if practical.

14. TRANSPORT INFORMATION

UN No. (DOT/TDG) UN1950

UN No. (IMDG) UN 1950

UN No. (ICAO) UN 1950

DOT Proper Shipping Name Limited Quantities

DOT Proper Shipping Name AEROSOLS

TDG Proper Shipping Name AEROSOLS

DOT Hazard Class

2.2

IMDG Class 2.2

ICAO Class 2.2

ICAO Subsidiary Risk N/A

DOT Pack Group N/A

IMDG Pack Group N/A

Air Pack Group N/A

Environmentally Hazardous Substance/Marine Pollutant

No.

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Markings

ORM-D

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code Notes

Not relevant No information required.

15. REGULATORY INFORMATION

Regulatory Status (US)

TSCA: The ingredients of this product are on the TSCA Inventory.

Regulatory References

NFPA30 Flammable and Combustible Liquids Code. 29 CFR 1910.1010 Federal Regulations (OSHA Standard).

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

SARA (311/312) Hazard Categories

Acute Chronic Pressure

OSHA Highly Hazardous Chemicals

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed.

PROPAN-2-OL

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed.

Massachusetts "Right To Know" List

The following ingredients are listed.

PROPAN-2-OL

Rhode Island "Right To Know" List

The following ingredients are listed.

PROPAN-2-OL

Minnesota "Right To Know" List

The following ingredients are listed.

HFC-134a Tetrafluoroethane

PROPAN-2-OL

New Jersey "Right To Know" List

The following ingredients are listed.

PROPAN-2-OL

Pennsylvania "Right To Know" List

The following ingredients are listed.

PROPAN-2-OL

International Inventories

Canada – DSL/NDSL

The following ingredients are listed.

HFC-134a Tetrafluoroethane

PROPAN-2-OL

US - TSCA

The following ingredients are listed.

HFC-134a Tetrafluoroethane

PROPAN-2-OL

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

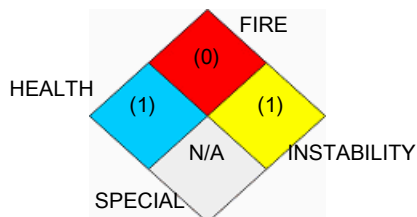
16. OTHER INFORMATION

VDX - VDX DRY LUBRICANT SPRAY, AEROSOL

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	1
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	B

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



Revision Comments

NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision Date	08/08/2013
Revision	7
Supersedes Date	07/05/2013
Sds No.	AEROSOL_VDX
Material Safety Data Sheet Status	Approved.
Date	08, August 2013

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.