

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear, colorless	Vapor Density: _(air=1)	Not determined
Physical State:	Liquid	Upper Explosion Limit:	Not determined
Odor:	Acidic	Lower Explosion Limit:	Not determined
PH:	<1	Auto Ignition Temp:	No data available
Freezing / Melting Point:	No data available	Density:	Not determined
Boiling Point:	No data available	Specific Gravity:	1.11 @ 25°C
Flash Point:	Does not flash	Water Solubility:	Complete (hot and cold)
Evaporation Rate: _(n-Water=1)	1	Thermal Decomposition:	No data available
Vapor Pressure:	Not determined	Viscosity:	No data available

10. STABILITY AND REACTIVITY

Reactivity:	Stable.
Chemical Stability:	Stable under normal conditions.
Possibility of Hazardous Reactions:	No decomposition if stored and applied as directed.
Conditions to Avoid:	Heat, flames and sparks.
Incompatible Materials:	Oxidizing agents, strong alkalis.
Hazardous Decomposition Products:	May emit toxic fumes under fire conditions. Hydrogen Fluoride. Phosphorus compounds, Carbon Monoxide, Carbon Dioxide.

11. TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Aggravated Medical Condition:	None known.
Symptoms of Overexposure:	Effects are immediate and delayed. Symptoms include blistering, irritation, burns and pain. Effects are dependent on exposure (dose, concentration, contact time). Symptoms may include central nervous system depression resulting in headache, nausea and/or dizziness.

ACUTE EFFECTS

Eye Contact:	May cause irreversible eye damage.
Skin Contact:	Causes skin burns. Harmful if absorbed through the skin. Contact results in immediate skin absorption which may cause Hypocalcemia (Calcium loss). This effect may be delayed for several hours after exposure. Severe over-exposure by absorption can result in death.
Inhalation:	Irritation to nose and throat, may cause bronchitis, pulmonary edema, or death.
Ingestion:	Throat irritation, severe gastrointestinal burns that may cause death.
Target Organs:	Eyes, skin, respiratory system, and bones.
Acute Toxicity:	Oral LC ₅₀ (Rat) (1 Hour) = 1276 ppm Dermal LC _{L0} (Rabbit) (7 Hour) = 313 ppm

12. ECOLOGICAL INFORMATION

Toxicity: Significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

Persistence and Degradability: Not biodegradable.

Bioaccumulative Potential: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Disposal Methods:

Collect and reclaim or dispose in sealed containers at a properly licensed waste disposal site. Do not allow this material to drain into sewers / water supplies. Do not contaminate ponds, waterways, or ditches with chemical or used containers. Dispose of contents and container in accordance with local / regional / national or international regulations.

United States -**RCRA Toxic Hazardous Waste "U" List:**

Ingredient	CAS No.	Status	Reference No.
Hydrogen Fluoride, Hydrofluoric Acid	7664-39-3	Listed	U134

14. TRANSPORT INFORMATION

Transportation Regulation: DOT 49 CFR (USA)

UN2922, Corrosive Liquid, Toxic, N.O.S., 8 (6.1), PG II (Contains Hydrofluoric Acid)

Transportation Regulation: IMDG (Vessel)

UN2922, Corrosive Liquid, Toxic, N.O.S., 8 (6.1), PG II (Contains Hydrofluoric Acid)

Transportation Regulation: IATA (Cargo Air)

UN2922, Corrosive Liquid, Toxic, N.O.S., 8 (6.1), PG II (Contains Hydrofluoric Acid)

Transportation Regulation: IATA (Passenger Air)

UN2922, Corrosive Liquid, Toxic, N.O.S., 8 (6.1), PG II (Contains Hydrofluoric Acid)

Transportation Regulation: TDG (Canada)

UN2922, Corrosive Liquid, Toxic, N.O.S., 8 (6.1), PG II (Contains Hydrofluoric Acid)

Reportable Quantity: See CERCLA reportable quantity in next section.

The product as delivered to the customer conforms to packaging requirements for shipment by road under US Department of Transportation (DOT) regulations. Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATORY INFORMATION

TSCA List: No substances are subject to a Significant New Rule or to TSCA 12(b) export notification.

EPCRA - EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT**CERCLA Reportable Quantity:**

Component	CAS No.	Component RQ (LBS)	Calculated Product RQ
Hydrogen Fluoride	7664-39-3	100	1000
Hydrogen Chloride	7647-01-0	5000	*
Phosphoric Acid	7664-38-2	5000	*

* Calculated RQ exceeds reasonably attainable upper limit

SARA 302:

The following component is subject to reporting levels per SARA Title III, Section 302:

Hydrogen Fluoride: 6.8041%

SARA 304:

Component	CAS No.	Component RQ (LBS)	Calculated Product RQ
Hydrogen Fluoride	7664-39-3	100	1000

SARA 311/312 Hazards:

Acute toxicity (any route of exposure). Skin corrosion or irritation. Serious eye damage or eye irritation

SARA 313:

The following component is subject to reporting levels per SARA Title III, Section 313:

Hydrogen Fluoride: 6.8041%

Clean Water Act (CWA) 311:

Hydrogen Fluoride, Hydrogen Chloride, Phosphoric Acid

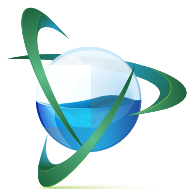
Clean Air Act (CAA) 112(b) Hazardous Air Pollutants (HAPs):

Hydrogen Fluoride

16. OTHER INFORMATION

MANUFACTURERS DISCLAIMER:

Information given herein is offered in good faith as accurate, but without guarantee, and represents the best information currently available to us; much of which comes from the manufacturer or supplier of components of this product. Conditions of use and suitability of the product for particular uses are beyond our control; all risks of use of the product and its disposal are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users. Vision Chemical Systems Inc., makes no warranty, expressed or implied regarding the accuracy of the data or for the use of the product. Furthermore, Vision Chemical Systems Inc. expressly disclaims liability for loss, damage, or expense arising from or in anyway connected to the handling, storage, use or disposal of this product. Health and safety precautions in this data sheet may not be adequate for all individuals and product uses. It is the users obligation to ensure that this SDS is the most current SDS available for the product; to evaluate the information contained in this sheet in connection to the uses to which the product is to be put in the work place, and to use the product safely in accordance with all applicable laws and regulations. If there are any questions regarding the information contained in this sheet or its applicability for a particular use, the user is instructed to telephone Vision Chemical Systems Inc. at 1-888-VCS-4-YOU.



VISION
CHEMICAL SYSTEMS

PRODUCT: H.D. DEGREASER ST
ISSUE DATE: 03/14/19
SUPERSEDES: 11/7/09
Revision Number: R-1

24 HOUR EMERGENCY TELEPHONE NUMBER:
INFOTRAC (1-800-535-5053) All Calls Recorded

SAFETY DATA SHEET

HMIS

Health	1
Fire Hazard	0
Reactivity	0
Personal Protection	X



NFPA 704 DESIGNATION

HAZARDS RATING KEY:

4=Extreme 3=High 2=Moderate 1=Slight 0=Insignificant

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

PRODUCT NAME:	H.D. DEGREASER ST™	MSDS LISTED FOR CONCENTRATES
GENERAL USE:	General purpose degreaser / Cleaner	
PRODUCT FORMULATION NAME:	MIXTURE	MOLECULAR FORMULA: N/A
MANUFACTURER:	VISION CHEMICAL SYSTEMS INC. 16401 East 33rd Drive, Suite 30 Aurora, CO 80011	SYNONYM(s): NONE CAS NUMBER: N/A Phone 888-VCS-4-YOU (888-827-4968) Fax 888-2-FAX-VCS (888-232-9827)

2. COMPOSITION & INFORMATION ON INGREDIENTS

COMPONENT	CAS #	OSHA PEL	TLV	% (BY WEIGHT)
Ethylene Glycol Monobutyl Ether	111-76-2	50 ppm/skin	25 ppm/skin	<10
Proprietary Detergent Blend - Non Hazardous				<95

3. HAZARDS IDENTIFICATION

SPECIAL NOTE: MSDS data pertains to the product as dispensed from the container. Adverse health effects would not be expected under recommended conditions of use so long as prescribed safety precautions are practiced.

ACUTE EFFECTS OF OVER EXPOSURE:

SKIN: Hazardous in case of skin contact (irritant, permeator). Prolonged or repeated contact may dry skin and cause irritation.

EYES: Hazardous in case of eye contact (irritant). Causes severe eye irritation. Liquid in eye may cause irritation with possible damage if not rinsed immediately. Inflammation of the eye is characterized by redness, watering, and itching.

INHALATION: Hazardous in case of inhalation (lung irritant). Avoid breathing vapors or mists. Overexposure by inhalation may cause respiratory irritation.

INGESTION: Harmful if swallowed. Aspiration hazard if swallowed-can enter lungs and cause damage.

Persons with allergies or pre-existing skin conditions should avoid contact with this product.



CHRONIC EFFECTS OF OVER EXPOSURE: Inhalation and ingestion effects of this product have not been determined. A prediction as to whether these effects will be exhibited by the product as a whole is dependent on an evaluation of the products use and extent and duration of exposure.

None of the ingredients are listed as carcinogens by IARC, NTP, or OSHA.

PROPOSITION 65 (California Safe Drinking Water and Toxic Enforcement Act of 1986) CHEMICAL(S) IN THIS PRODUCT IS/ARE:

This product does not contain any chemicals listed.

4. FIRST AID MEASURES

EYE CONTACT:	In case of contact, immediately rinse eyes with a gentle stream of clean water for at least 15 minutes, holding eyelids open. Get medical attention.
SKIN CONTACT:	Remove contaminated clothing and thoroughly rinse skin with plenty of water. If irritation occurs and persists, seek medical attention. Launder clothes before reuse.
INGESTION:	Aspiration hazard if swallowed. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If vomiting occurs place head lower than hips to prevent aspiration. Seek medical attention immediately.
INHALATION:	If symptoms occur move affected person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5. FIRE FIGHTING MEASURES

FLASHPOINT AND METHOD: This product is not flammable or combustible.

Flammable Limits (in air, % by volume): Upper: N/A Lower: N/A **Autoignition Temperature:** N/A

GENERAL HAZARD: Evacuate personnel downwind of fire to avoid inhalation of irritating and/or harmful fumes and smoke.

FLAME PROPAGATION OR BURNING RATE OF SOLIDS: Not Available

FIRE FIGHTING INSTRUCTIONS / EXTINGUISHING MEDIA: Water spray, CO₂, Chemical-type foam.

DECOMPOSITION PRODUCTS UNDER FIRE CONDITIONS: Not available

HAZARDOUS COMBUSTION PRODUCTS: Not determined for this product.

FIRE FIGHTING EQUIPMENT: Respiratory and eye protection are required for fire fighting personnel. Full protective equipment (Bunker Gear) and self contained breathing apparatus (SCBA) should be used for all indoor fires and any significant outdoor fires. For small outdoor fires, which may easily be extinguished with a portable fire extinguisher, use of a SCBA may not be required.

SENSITIVE TO STATIC DISCHARGE: NO

SENSITIVITY TO IMPACT: NO

6. ACCIDENTAL RELEASE MEASURES**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:**

Observe safety procedures in section 7 and 8 during clean up. Put on appropriate personal protective equipment (see section 8). Small spills can be wiped up. Large spills should be absorbed by dirt, sand, or other suitable absorbents for disposal. Rinse area well with water.

WASTE DISPOSAL METHOD:

Waste must be disposed of in accordance with all federal, state, and local environmental control regulations.

COMMENTS: See Section 13 for disposal information and Section 15 for regulatory requirements.

7. HANDLING AND STORAGE

Store in a cool, dry, well-ventilated place, away from incompatible materials (e.g. strong oxidizers). Keep from freezing, if frozen return to room temperature. Protect eyes, skin, and clothing from contact with product. Wear recommended protective equipment. Wash thoroughly after handling. Empty containers may be hazardous. Do not cut, puncture, or weld on or near empty containers.

KEEP OUT OF REACH OF CHILDREN

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

CONTROL MEASURES: General mechanical room ventilation is sufficient for normal use of this product. If use generates heavy vapors, mists, or aerosols, use local mechanical exhaust ventilation capable of maintaining emissions in the work area below occupational exposure limits and/or a level of irritation to the eyes or respiratory tract.

PERSONAL PROTECTIVE EQUIPMENT(PPE):

RESPIRATOR: Not required for normal use of this product. Wear appropriate respirator when ventilation is inadequate.

EYES: Use tight fitting safety glasses or splash goggles.

CLOTHING & EQUIPMENT: Use of chemical resistant gloves and apron is strongly recommended, especially for prolonged contact. An eye wash station and safety shower should be available in the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear Colorless	Bulk Density (pounds/ft ³):	N/D
Physical State:	Liquid	Vapor Pressure:	N/D
Odor:	Mild Detergent	Vapor Density (air=1):	N/D
Odor Threshold:	N/D	Evaporation Rate (n-Water=1):	Slower than water
Molecular Formula:	N/D	VOC Content:	N/A
Molecular Weight:	N/D	% Volatile	N/D
Boiling Point:	212 ° F	Solubility in H₂O:	Complete
Freezing/Melting Point:	35.9		
Specific Gravity:	1.01 @ 25° C		
Density:	N/D		

10. STABILITY AND REACTIVITY

GENERAL: This product is stable and hazardous polymerization will not occur.

CONDITIONS TO AVOID: Avoid excessive heat and flame.

INCOMPATIBLE MATERIAL: Avoid contact with strong oxidizing agents or anything that is not compatible with water.

HAZARDOUS DECOMPOSITION PRODUCTS: Not Determined.

SENSITIVITY TO MECHANICAL IMPACT: This product is NOT sensitive to mechanical impact.

SENSITIVITY TO STATIC DISCHARGE: This product NOT sensitive to static discharge.

11. TOXICOLOGICAL INFORMATION

Toxicity to animals:

Ethylene Glycol Monobutyl Ether:

ORAL (LD50): Acute: 1746 mg/kg [Rat], 1519 mg/kg [Mouse].

DERMAL (LD50): Acute: 435 mg/kg [Rabbit].

VAPOR (LC50): Acute: 700ppm 7 hour(s) [Mouse]. >633 ppm 1 hour(s) [Guinea pig]

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:

The environmental fate of this product is expected to be: **Land:** Not determined **Water:** Not determined **Air:** Product is not expected to bioaccumulate.

13. DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Dispose of waste at an appropriate waste disposal facility in accordance with current applicable federal, state and local laws and regulations.

REGULATORY REQUIREMENTS: (See Section 15)

EMPTY CONTAINER: Containers should be triple rinsed before disposal. Dispose of in accordance with applicable local, state, and federal regulations.

Refer to Section 6, Accidental Release Measures for additional information.

14. TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: INDUSTRIAL CLEANERS N.O.I., LIQUID KEEP FROM FREEZING

DOT HAZARD CLASS: N/A

DOT PACKAGING GROUP: N/A

DOT I.D. NUMBER: N/A

DOT LABEL/PLACARD: N/A

VESSEL (IMO/IMDG): PROPER SHIPPING NAME: N/A

LABEL: Use Product Identifier, "Trade Name".

AIR (ICAO/IATA): PROPER SHIPPING NAME: N/A

LABEL: Use Product Identifier, "Trade Name".

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

313 REPORTABLE INGREDIENTS: Ethylene Glycol Monobutyl Ether: **TITLE III NOTES:** Not Applicable

STATE REGULATIONS: Consult State Authorities

CAA (CLEAN AIR ACT, USA): Ethylene Glycol Monobutyl Ether:

CLEAN WATER ACT / OIL POLLUTION ACT: No products were found.

16. OTHER INFORMATION

MSDS distributed by: Vision Chemical Systems Inc. Phone: 1-888-VCS-4-YOU

Fax: 1-888-2-FAX-VCS

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