



Safety Data Sheet

Prist® HI-FLASH® HI-FLO™ Anti-Icing Aviation Fuel Additive

Version 1.2

Revision Date: 04/06/2022

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Prist® HI-FLASH® HI-FLO™ Anti-Icing Aviation Fuel Additive
Manufacturer or supplier's details
Company : PRIST®
Address : 3075 Highland Pkwy Suite 200
Downers Grove, IL 60515
United States of America (USA)
Emergency telephone number:
PRIST®:-CHEMTREC INTERNATIONAL Tel # 703-527-3887
Additional Information: : Phone: 1-855-429-2661
Regulatory Information Number: 1-855-429-2661
Email: SDSNA@univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Flammable liquids : Category 4
Reproductive toxicity : Category 2
Specific target organ toxicity - single exposure : Category 3 (Central nervous system)

GHS label elements

Hazard pictograms : 

Signal word : Warning

Hazard statements : H227 Combustible liquid.
H336 May cause drowsiness or dizziness.
H361 Suspected of damaging fertility or the unborn child.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P210 Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/



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doctor if you feel unwell.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	Weight percent
111-77-3	Glycol Ether DM	90 - 100

Any Concentration shown as a range is due to batch variation.

Molecular formula : CH₃ O (CH₂CH₂O)₂H

Synonyms : PRIST FA P/N 35737,

SECTION 4. FIRST AID MEASURES

- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
- If inhaled : Consult a physician after significant exposure.
If unconscious, place in recovery position and seek medical advice.
- In case of skin contact : If on skin, rinse well with water.
If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Do not induce vomiting without medical advice.
Keep respiratory tract clear.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.
Take victim immediately to hospital.



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SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Foam
Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides

Carbon oxides
- Specific extinguishing methods : Use a water spray to cool fully closed containers.
- Further information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Do not spray on a naked flame or any incandescent material.
Keep away from open flames, hot surfaces and sources of ignition.
- Advice on safe handling : Avoid formation of aerosol.
Do not breathe vapours/dust.



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	<p>Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Provide sufficient air exchange and/or exhaust in work rooms. Dispose of rinse water in accordance with local and national regulations.</p>
Conditions for safe storage	<p>: No smoking. Keep in a well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.</p>
Storage period	<p>: 6 - 24 Months</p>
Packaging material	<p>: Unsuitable material: Aluminium, Copper, Iron, Unlined steel, Zinc Suitable material: Carbon steel, Stainless steel</p>

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	<p>: No personal respiratory protective equipment normally required. In the case of vapour formation use a respirator with an approved filter. General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.</p>
Hand protection	
Remarks	<p>: The suitability for a specific workplace should be discussed with the producers of the protective gloves.</p>
Eye protection	<p>: Eye wash bottle with pure water Tightly fitting safety goggles</p>
Skin and body protection	<p>: Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.</p>
Hygiene measures	<p>: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.</p>



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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear, Colorless
Odour	: mild, aromatic
Odour Threshold	: No data available
pH	: No data available
Freezing Point (Melting point/freezing point)	: -84 - -65 °C (-119 - -85 °F)
Boiling Point (Boiling point/boiling range)	: 193 - 194 °C (379 - 381 °F) (1013 hPa)
Flash point	: 83.9 - 91 °C (183.0 - 196 °F) (1,013 hPa) Method: closed cup
Evaporation rate	: 0.02 (Butyl Acetate = 1)
Flammability (solid, gas)	: No data available
Upper explosion limit	: 22.7 %(V)
Lower explosion limit	: 1.38 %(V)
Vapour pressure	: 0.19 - 0.25 mmHg @ 20 - 25 °C (68 - 77 °F)
Relative vapour density	: < 4.2 @ 20 - 25 °C (68 - 77 °F) (Air = 1.0)
Relative density	: 1.020 - 1.025 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 1.022 - 1.025 g/cm ³ @ 20 °C (68 °F)
Solubility(ies)	
Water solubility	: completely soluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: -0.47 - -0.46 @ 20 °C (68 °F)
Auto-ignition temperature	: 215 °C
Thermal decomposition	: No data available
Viscosity	
Viscosity, dynamic	: 3.9 mPa.s @ 20 °C (68 °F)
Viscosity, kinematic	: 3.82 - 3.89 mm ² /s @ 20 °C (68 °F)

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
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Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No hazards to be specially mentioned.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Acids Bases Oxidizing agents Oxidizing agents Aluminium
Hazardous decomposition products	: Aldehydes Carbon oxides Ketones Organic acids

SECTION 11. TOXICOLOGICAL INFORMATION

Carcinogenicity

IARC

No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

111-77-3:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Oral
Duration of Single Treatment: 10 d
Teratogenicity: LOAEL: 720 mg/kg body weight
Symptoms: Skeletal malformations

Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

Teratogenicity - Assessment : Some evidence of adverse effects on development, based on animal experiments.



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STOT - single exposure

Product:

Target Organs: Central nervous system

Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Concentrations substantially above the TLV value may cause narcotic effects.

Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No data available



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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni-var Solutions ChemCare: 1-800-637-7922
- Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

NA1993, Combustible liquid, n.o.s., (GLYCOL ETHER DM), CBL, III

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

- Special Notes:** : The flash point for this material is greater than 100 F (38 C). Therefore, in accordance with 49 CFR 173.150(f) non-bulk containers (<450L or <119 gallon capacity) of this material may be shipped as non-regulated when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant, or specifically listed as a hazardous substance.

SECTION 15. REGULATORY INFORMATION

- WHMIS Classification** : B3: Combustible Liquid
D2A: Very Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
2-ethoxyethanol	110-80-5	1000	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

- SARA 311/312 Hazards** : Flammable (gases, aerosols, liquids, or solids)
Reproductive toxicity



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Specific target organ toxicity (single or repeated exposure)

SARA 302 : This material does not contain any components with a section 302 EHS TPQ.

SARA 313 : The following components are subject to reporting levels established by SARA Title III, Section 313:

111-77-3	Glycol Ether DM
111-76-2	2-Butoxy ethanol
111-90-0	Glycol ether DE
112-35-6	Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-

Clean Air Act

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 112 (40 CFR 61):

111-77-3 Glycol Ether DM

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMII Intermediate or Final VOC's (40 CFR 60.489):

111-77-3 Glycol Ether DM

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

Massachusetts Right To Know

111-77-3 Glycol Ether DM

Pennsylvania Right To Know

111-77-3	Glycol Ether DM
109-86-4	Ethanol, 2-methoxy-
110-80-5	2-ethoxyethanol
111-90-0	Glycol ether DE
112-35-6	Ethanol, 2-[2-(2-methoxyethoxy)ethoxy]-
67-56-1	Methanol

California Prop 65

⚠ WARNING: This product can expose you to chemicals including Ethanol, 2-methoxy-, 2-ethoxyethanol, Methanol, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory



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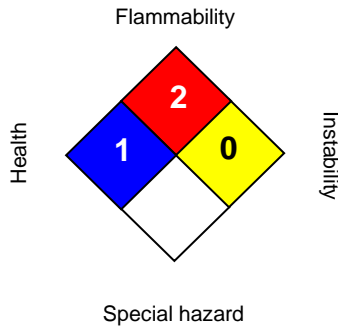
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- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : On the inventory, or in compliance with the inventory
- KECI : On the inventory, or in compliance with the inventory
- PICCS : On the inventory, or in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	1*
FLAMMABILITY	2
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
 2 = Moderate, 3 = High
 4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 04/06/2022

Material number:
16056156,

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances	NIOSH	National Institute for Occupational Safety and Health



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	es List		Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		