



SOLVANTAGE AZIMUTH

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 06/04/2021 Version: 1.0

SECTION 1: Identification

Identification

Product form : Mixture
Product name : SOLVANTAGE AZIMUTH
Product code : 50SA12

Recommended use and restrictions on use

Use of the substance/mixture : Cleaning/washing agents and additives

Supplier

Supplier

BHC, Inc.
P.O. Box 270
Indianapolis, IN 46206 - USA
T 1.800.776.7149 - F 317.925.4596
Regulatory@bhcinc.com - www.bhcinc.com

Emergency telephone number

Emergency number : CHEMTREC: 1.800.424.9300 or CHEMTREC (International)
1.703.527.3887

SECTION 2: Hazard(s) identification

Classification of the substance or mixture

GHS US classification

Gases under pressure Liquefied gas	Contains gas under pressure; may explode if heated
Simple Asphyxiant	May displace oxygen and cause rapid suffocation
Hazardous to the aquatic environment - Chronic Hazard Category 3	Harmful to aquatic life with long lasting effects

GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)



Signal word (GHS US):

Warning

Hazard statements (GHS US):

Contains gas under pressure; may explode if heated
Harmful to aquatic life with long lasting effects
May displace oxygen and cause rapid suffocation

Precautionary statements (GHS US)

Prevention:

Avoid release to the environment.

Storage:

Protect from sunlight. Store in a well-ventilated place.

Disposal:

Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Other hazards which do not result in classification

No additional information available

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Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Name	Product identifier	Weight (%)
trans-1-Chloro-3,3,3-trifluoropropene	(CAS-No.) 102687-65-0	80 – 90
TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE	(CAS-No.) 29118-24-9	10 – 20

SECTION 4: First-aid measures

Description of first aid measures

- First-aid measures general : If medical advice is needed, have product container or label at hand.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Call a physician immediately.
- First-aid measures after skin contact : Wash skin with plenty of water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse eyes with water as a precaution. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Do not induce vomiting. Rinse mouth. If the person is fully conscious, make him/her drink water. Never give an unconscious person anything to drink. Call a physician immediately.

Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : May cause respiratory irritation.
- Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking.
- Symptoms/effects after eye contact : May cause slight irritation.

Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide (CO₂).

Specific hazards arising from the chemical

- Fire hazard : In case of fire and/or explosion do not breathe fumes.
- Explosion hazard : Contains gas under pressure; may explode if heated.
- Reactivity : The product is non-reactive under normal conditions of use, storage and transport. In case of fire: May release : Hydrogen fluoride. hydrogen chloride. carbon monoxide. Carbon dioxide (CO₂).

Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Prevent fire-fighting water from entering environment. Use water spray or fog for cooling exposed containers.
- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

- General measures : Evacuate area. Ventilate spillage area. Avoid the spillage or runoff entering drains, sewers or watercourses.

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For non-emergency personnel

Emergency procedures : Ventilate spillage area. Keep upwind. Evacuate unnecessary personnel. Only qualified personnel equipped with suitable protective equipment may intervene.

For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses. Prevent liquid from entering sewers, watercourses, underground or low areas.

Methods and material for containment and cleaning up

For containment : Collect spillage. Contain large spillage with sand or earth.
Other information : Dispose of materials or solid residues at an authorized site.

Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Wear personal protective equipment. Use only in a well-ventilated area. Handle carefully. Do not breathe mist, spray, vapors. Avoid contact with skin, eyes and clothing. Protect cylinders from physical damage; do not drag, roll, slide or drop. Pressurized container: Do not pierce or burn, even after use. Do not spray on an open flame or other ignition source.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.
Storage temperature : < 50 °C 122°F
Information on mixed storage : Keep away from : Incompatible materials.
Storage area : Store away from heat. Protect from sunlight. Store in a well-ventilated place.

SECTION 8: Exposure controls/personal protection

Control parameters

trans-1-Chloro-3,3,3-trifluoropropene (102687-65-0)		
AIHA	AIHA OEL TWA [ppm]	800 ppm
TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE (29118-24-9)		
AIHA	AIHA OEL TWA [ppm]	800 ppm

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Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.
- Environmental exposure controls : Avoid release to the environment.

Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves. solvent-resistant gloves

Eye protection:

Do not wear contact lenses. Shall wear safety glasses with side shield or goggles or face shield

Skin and body protection:

Wear suitable protective clothing. If the occupational exposure limit is exceeded: Solvent-resistant apron and boots

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. If exposure limits are exceeded, NIOSH approved respiratory protection should be worn. . Approved supplied air respirator

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: aerosol.
Color	: Colorless
Odor	: slight
Odor threshold	: No additional information
pH	: Not applicable
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 66 °F 19°C @ 101.3 kPa
Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: 1.91 kPa @ 20°C
Relative vapor density at 20 °C	: > 1
Relative density	: 1.24
Solubility	: Water: Slightly soluble
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available

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Explosive properties : No data available
Oxidizing properties : No data available
VOC content : 59 g/l

SECTION 10: Stability and reactivity

Reactivity

The product is non-reactive under normal conditions of use, storage and transport. In case of fire: May release : Hydrogen fluoride. hydrogen chloride. carbon monoxide. Carbon dioxide (CO₂).

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use. Polymerization can occur.

Conditions to avoid

None under recommended storage and handling conditions (see section 7).

Incompatible materials

Strong oxidizing agents. Finely divided metals (Al, Mg, Zn).

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified

ATE US (oral)	>2,000 mg/kg body weight
ATE US (dermal)	>2,000 mg/kg body weight
ATE US (gases)	>20,000 ppm/4h
ATE US (vapors)	>20 mg/l/4h
ATE US (dust, mist)	>5 mg/l/4h

Skin corrosion/irritation : Not classified
pH: Not applicable
Serious eye damage/irritation : Not classified
pH: Not applicable
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure : Not classified
Aspiration hazard : Not classified

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Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: May cause respiratory irritation.
Symptoms/effects after skin contact	: Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: May cause slight irritation.

SECTION 12: Ecological information

Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
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Persistence and degradability

trans-1-Chloro-3,3,3-trifluoropropene (102687-65-0)

Persistence and degradability	Not readily biodegradable.
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TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE (29118-24-9)

Persistence and degradability	Not readily biodegradable.
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Bioaccumulative potential

No additional information available

Mobility in soil

No additional information available

Other adverse effects

Effect on global warming	: No known effects from this product.
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SECTION 13: Disposal considerations

Disposal methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
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SECTION 14: Transport information

US - DOT

Proper Shipping Name (DOT)	: Aerosols (NON-FLAMMABLE, LIMITED QUANTITY)
UN-No.(DOT)	: UN1950
Class (DOT)	: 2.2 - Class 2.2 - Non-flammable compressed gas 49 CFR 173.115
Hazard labels (DOT)	: Non-flammable gas

International shipping – IMDG

Proper Shipping Name (IMDG)	: AEROSOLS
UN-No. (IMDG)	: 1950
Class (IMDG)	: Gases

International – IATA

Proper Shipping Name (IATA)	: Aerosols, non-flammable
UN-No. (IATA)	: 1950
Proper Shipping Name (IATA)	: Aerosols, non-flammable
Class (IATA)	: 2 - Gases

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SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed as Active, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

trans-1-Chloro-3,3,3-trifluoropropene (102687-65-0)

EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance.
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TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE (29118-24-9)

EPA TSCA Regulatory Flag	PMN - PMN - indicates a commenced PMN substance.
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15.2. International regulations

CANADA

trans-1-Chloro-3,3,3-trifluoropropene (102687-65-0)

Listed on the Canadian DSL (Domestic Substances List)

TRANS-1,3,3,3-TETRAFLUOROPROP-1-ENE (29118-24-9)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.