



SUR-PREP 5602 Aerosol

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
Issue date: 3/7/2024 Revision date: 3/7/2024 Supersedes: 11/3/2022 Version: 2.1

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : SUR-PREP 5602 Aerosol

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Washing and cleaning products (Including solvent based products.)
Recommended use : Washing and cleaning products (including solvent based products)

1.3. Supplier

Manufacturer

Zip-Chem Products
400 Jarvis Drive
Morgan Hill, CA, Santa Clara, 95037
United States
T 408-782-2335 - F 408-782-6304
zipchem@addevmaterials.com - www.zipchem.com

1.4. Emergency telephone number

Emergency number : 1-800-424-9300

Country/Area	Organization/Company	Address	Emergency number	Comment
US	Chemtrec		1-800-424-9300	

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable aerosol Category 1 H222 Extremely flammable aerosol
Pressurized container: H229 Pressurized Container: May burst if heated

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger
Hazard statements (GHS US) : H222 - Extremely flammable aerosol
H229: Pressurized container: May burst if heated
Precautionary statements (GHS US) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

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P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P273 - Avoid release to the environment.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
1,1-difluoroethane, liquefied, under pressure	CAS-No.: 75-37-6	50-150	Aquatic Chronic 3, H412

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact : Wash skin with plenty of water.
First-aid measures after eye contact : Rinse eyes with water as a precaution.
First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact : Causes mild skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : May be harmful if swallowed.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire : Toxic fumes may be released.

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5.3. Special protective equipment and precautions for fire-fighters

Precautionary measures fire	: Stop leak if safe to do so.
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

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Evacuate area. Stop leak if safe to do so.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
Emergency procedures	: Ventilate spillage area.

6.1.2. 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".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak, if possible without risk.
Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

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8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Gloves. Protective clothing. Safety glasses.

Hand protection:
Protective gloves
Eye protection:
Safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Color	: Colorless
Odor	: odorless
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available.
Freezing point	: No data available
Boiling point	: -25 °C
Flash point	: < -50 °C
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: 5960 hPa
Relative vapor density at 20°C	: No data available.
Relative density	: 0.9
Density	: 0.9 g/ml
Solubility	: Water: 0.2 g/l
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: 454 °C
Decomposition temperature	: > °C
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: 3.9 – 16.9 vol % Lower explosion limit: 3.9 vol % Upper explosion limit: 16.9 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available

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9.2. Other information

VOC content : 0 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

No additional information available

10.6. 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

1,1-difluoroethane, liquefied, under pressure (75-37-6)

LC50 Inhalation - Rat [ppm]	> 437500 ppm (4 h, Rat, Male, Experimental value, Inhalation (gases), 14 day(s))
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Skin corrosion/irritation : Not classified
Causes skin irritation

1,1-difluoroethane, liquefied, under pressure (75-37-6)

pH	No data available in the literature
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Serious eye damage/irritation : Not classified
Causes serious eye irritation

1,1-difluoroethane, liquefied, under pressure (75-37-6)

pH	No data available in the literature
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Respiratory or skin sensitization : Not classified
May cause an allergic skin reaction

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not applicable

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Viscosity, kinematic : No data available

1,1-difluoroethane, liquefied, under pressure (75-37-6)

Viscosity, kinematic	Not applicable (gas)
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing).
Symptoms/effects after skin contact	: Causes mild skin irritation.
Symptoms/effects after eye contact	: Causes serious eye irritation.
Symptoms/effects after ingestion	: May be harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

1,1-difluoroethane, liquefied, under pressure (75-37-6)

LC50 - Fish [1]	295.783 mg/l (ECOSAR v1.00, 96 h, Pisces, QSAR, Estimated value)
EC50 - Crustacea [1]	146.695 mg/l (ECOSAR v1.00, 48 h, Daphnia sp., QSAR, Estimated value)
EC50 96h - Algae [1]	47.755 mg/l (ECOSAR v1.00, Algae, QSAR, Estimated value)

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
1,1-difluoroethane, liquefied, under pressure (75-37-6)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

1,1-difluoroethane, liquefied, under pressure (75-37-6)

Partition coefficient n-octanol/water (Log Pow)	1.13 (QSAR, KOWWIN, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

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Mobility in soil	Readily Absorbed into soil
1,1-difluoroethane, liquefied, under pressure (75-37-6)	
Surface tension	No data available in the literature
Ecology - soil	Not applicable (gas).

12.5. Other adverse effects

Effect on global warming : No known effects from this product.

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SECTION 13: Disposal considerations

13.1. Disposal methods

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

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

DOT	IMDG	IATA
14.1. UN number		
1950	1950	1950
14.2. Proper Shipping Name		
Aerosols, flammable (2.1)	Aerosols, flammable (2.1)	Aerosols, flammable (2.1)
Transport document description		
UN1950 Aerosols (flammable, 2.1)	UN1950 Aerosols (flammable, 2.1)	UN1950 Aerosols (flammable, 2.1)
14.3. Transport hazard class(es)		
2.1	2.1	2.1
		
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No
No supplementary information available		

14.6. Special precautions for user

DOT

UN-No.(DOT) : UN1950
DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.
DOT Packaging Exceptions (49 CFR 173.xxx) : 306
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg
DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other : 25 - Protected from sources of heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials

IMDG

Special provision (IMDG) : 63, 190, 277, 327, 344, 381, 959
Limited quantities (IMDG) : SP277
Excepted quantities (IMDG) : E0
Packing instructions (IMDG) : P207, LP200

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Packing provisions (IMDG)	: PP87, L2
EmS-No. (Fire)	: F-D - FIRE SCHEDULE Delta - FLAMMABLE GASES
EmS-No. (Spillage)	: S-U - SPILLAGE SCHEDULE Uniform - GASES (FLAMMABLE, TOXIC OR CORROSIVE)
Stowage category (IMDG)	: None
Stowage and handling (IMDG)	: SW1, SW22
Segregation (IMDG)	: SG69

IATA

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Y203
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 203
PCA max net quantity (IATA)	: 75kg
CAO packing instructions (IATA)	: 203
CAO max net quantity (IATA)	: 150kg
Special provision (IATA)	: A145, A167, A802
ERG code (IATA)	: 10L

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

15.2. International regulations

CANADA

1,1-difluoroethane, liquefied, under pressure (75-37-6)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

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Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)
Listed on KECL/KECI (Korean Existing Chemicals Inventory)

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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Full text of H-phrases	
H222	Extremely flammable aerosol
H412	Harmful to aquatic life with long lasting effects

Indication of changes:			
Section	Changed item	Change	Comments
	Supersedes	Added	No additional information available
	Revision date	Modified	No additional information available
	Proper Shipping Name (TDG)	Added	No additional information available
	Proper Shipping Name (IATA)	Added	No additional information available
	Special provision (IMDG)	Added	No additional information available
	DOT Vessel Stowage Other	Added	No additional information available
	DOT Vessel Stowage Location	Added	No additional information available
	DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	Added	No additional information available
	DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	Added	No additional information available
	DOT Packaging Non Bulk (49 CFR 173.xxx)	Added	No additional information available
	DOT Packaging Exceptions (49 CFR 173.xxx)	Added	No additional information available
	Hazard labels (DOT)	Added	No additional information available
	DOT Special Provisions (49 CFR 172.102)	Added	No additional information available
	UN-No. (TDG)	Added	No additional information available
	DOT NA No	Added	No additional information available
	UN-No.(DOT)	Added	No additional information available
	Proper Shipping Name (DOT)	Added	No additional information available
	Proper Shipping Name (IMDG)	Modified	No additional information available
	Stowage category (IMDG)	Modified	No additional information available
14	Packing provisions (IMDG)	Added	No additional information available
14	UN-No. (IMDG)	Modified	No additional information available
14	Packing instructions (IMDG)	Modified	No additional information available
14	UN-No. (IATA)	Modified	No additional information available

Safety Data Sheet (SDS), USA

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.