

SAFETY DATA SHEET

Freez-It(R) Anti-Stat

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Identification of the substance or mixture

Product name : Freez-It(R) Anti-Stat
Chemical name : Freez-It (R) Anti-Stat ES1551E
Synonyms : ES1551E
Product type : Aerosol.
Use of the substance/mixture : Cooling agents - (not for metal processing) - Cooling agents

Company/undertaking identification

Manufacturer : ITW Chemtronics
 8125 Cobb Center Drive
 Kennesaw, GA 30152
 Tel. 770-424-4888 or toll free 800-645-5244

Distributor :

Importer : ITW Contamination Control BV
 Saffierlaan 5
 VZ-2132 Hoofddorp
 The Netherlands

Email: info@itw-cc.com

Tel: +31 88 1307 400

FAX: +31 88 1307 499

e-mail address of person responsible for this SDS : askchemtronics@chemtronics.com

Emergency telephone number (with hours of operation) : Chemtrec - 1-800-424-9300 or collect 703-527-3887

2. HAZARDS IDENTIFICATION

The product is not classified as dangerous according to Directive 1999/45/EC and its amendments.

Classification : Not classified.

Additional hazards : Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. Ingestion of liquid can cause burns similar to frostbite.

See Section 11 for more detailed information on health effects and symptoms.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation : Mixture

Ingredient name	CAS number	%	EC number	Classification
dimethyl ether	115-10-6	1 - 5	204-065-8	F+; R12 [2]
methanol	67-56-1	1 - 3	200-659-6	F; R11 [1] [2] T; R23/24/25, R39/23/24/25
See Section 16 for the full text of the R-phrases declared above.				

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

First-aid measures

Inhalation : Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention if symptoms occur.

Ingestion : Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Skin contact : If frostbite occurs, get medical attention. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.

Date of issue/Date of revision : 12/15/2011.

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4. FIRST AID MEASURES

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See Section 11 for more detailed information on health effects and symptoms.

5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed.
- Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
halogenated compounds
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Avoid breathing gas. Avoid breathing vapour or mist.
- Storage** : Store in accordance with local regulations. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Use appropriate containment to avoid environmental contamination.
- Packaging materials**
- Recommended** : Use original container.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure limit values

<u>Ingredient name</u>	<u>Occupational exposure limits</u>
dimethyl ether	EU OEL (Europe, 4/2006). Notes: Indicative Limit value: 1920 mg/m ³ 8 hour(s). Limit value: 1000 ppm 8 hour(s).
methanol	EU OEL (Europe, 4/2006). Absorbed through skin. Notes: Indicative Limit value: 260 mg/m ³ 8 hour(s). Limit value: 200 ppm 8 hour(s).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.
- Exposure controls**
- Occupational exposure controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eye protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. PHYSICAL AND CHEMICAL PROPERTIES

General information

Appearance

- Physical state** : Gas. [Compressed gas]
- Colour** : Colourless.
- Odour** : Ethereal. [Slight]

Important health, safety and environmental information

- Boiling point** : -27°C (-16.6°F)
- Melting point** : -138.5°C (-217.3°F) This is based on data for the following ingredient: dimethyl ether.
- Relative density** : Weighted average: 0.75 (Water = 1)
- Vapour density** : 3.18 (Air = 1)
- Evaporation rate (butyl acetate = 1)** : >1 compared with butyl acetate

10. STABILITY AND REACTIVITY

- Stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Materials to avoid** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
dimethyl ether	LC50 Inhalation Vapour	Rat	309 g/m3	4 hours
methanol	LD50 Dermal	Rabbit	15800 mg/kg	-
	LD50 Intraperitoneal	Rat	7529 mg/kg	-
	LD50 Intravenous	Rat	2131 mg/kg	-
	LD50 Oral	Rat	5600 mg/kg	-
	TDL0	Rat	3490 mg/kg	-

11. TOXICOLOGICAL INFORMATION

Intraperitoneal TDLo	Rat	3000 mg/kg	-
Intraperitoneal TDLo Oral	Rat	8 g/kg	-
TDLo Oral	Rat	3 g/kg	-
TDLo Oral	Rat	3500 mg/kg	-
LC50 Inhalation Gas.	Rat	64000 ppm	4 hours

Potential chronic health effects

Chronic effects	: No known significant effects or critical hazards.
Carcinogenicity	: No known significant effects or critical hazards.
Mutagenicity	: No known significant effects or critical hazards.
Teratogenicity	: No known significant effects or critical hazards.
Developmental effects	: No known significant effects or critical hazards.
Fertility effects	: No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation	: Adverse symptoms may include the following: respiratory tract irritation coughing
Ingestion	: No specific data.
Skin	: No specific data.
Eyes	: Adverse symptoms may include the following: irritation redness
Target organs	: Contains material which causes damage to the following organs: the nervous system. Contains material which may cause damage to the following organs: gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

12. ECOLOGICAL INFORMATION

Environmental effects : No known significant effects or critical hazards.

Aquatic ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
methanol	-	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	-	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours
	-	Acute EC50 13000000 to 13400000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	-	Acute EC50 12700000 to 13700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	-	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	-	Acute LC50 15500 mg/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	-	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	-	Acute LC50 19 to 20 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
	-	Acute LC50	Fish - Bleak -	96 hours

12. ECOLOGICAL INFORMATION

-	>28000000 ug/L Marine water Acute LC50	Alburnus alburnus - 8 cm Fish - Bleak -	96 hours
-	28000000 ug/L Marine water Acute LC50	Alburnus alburnus - 8 to 10 cm Fish - Rainbow trout,donaldson trout -	96 hours
-	20100000 to 20700000 ug/L Fresh water	Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	
-	Acute LC50 15400000 to 17600000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
-	Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours
-	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
-	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours

Conclusion/Summary : Not available.

Biodegradability

Conclusion/Summary : Not available.




Other adverse effects : No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Do not puncture or incinerate container.

Hazardous waste : Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC.


14. TRANSPORT INFORMATION**International transport regulations**

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADR/RID Class	UN1950	AEROSOLS (1,1,1,2-TETRAFLUOROETHANE)	2	-		-
ADN/ADNR Class	1950	AEROSOLS(dimethyl ether)	2	-		-
IMDG Class	1950	AEROSOLS (1,1,1,2-TETRAFLUOROETHANE)	2.2	-		-

Date of issue/Date of revision : 12/15/2011.

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14. TRANSPORT INFORMATION

IATA Class	3159	Aerosols, non-flammable(1,1,1,2-TETRAFLUOROETHANE)	2.2	-		-
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PG* : Packing group

15. REGULATORY INFORMATION**EU regulations**

Classification and labeling have been determined according to EU Directives 67/548/EEC and 1999/45/EC (including amendments) and take into account the intended product use.

Risk phrases : This product is not classified according to EU legislation.

Product use : Professional applications, Used by spraying.

Europe inventory : Not determined.

Other EU regulations

Additional warning phrases : Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Keep away from sources of ignition - No smoking. Keep out of the reach of children. Safety data sheet available for professional user on request.

16. OTHER INFORMATION

Full text of R-phrases referred to in sections 2 and 3 - Europe : R12- Extremely flammable.
R11- Highly flammable.
R23/24/25- Toxic by inhalation, in contact with skin and if swallowed.
R39/23/24/25- Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.

Full text of classifications referred to in sections 2 and 3 - Europe : F+ - Extremely flammable
F - Highly flammable
T - Toxic

History

Date of printing : 12/15/2011.

Date of issue/Date of revision : 12/15/2011.

Date of previous issue : No previous validation.

Version : 6

Prepared by : Not available.

☑ Indicates information that has changed from previously issued version.

Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.