

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

1 Identification

- **Product identifier**
- **Trade name: Rawn Super Freeze**
- **Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Super Freeze
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Cortec Spray Technologies
1300 S. River St.
Spooner WI 54801
Phone (715) 635-8711
Fax (715) 635-2200
Cortec Corporation
4119 White Bear Parkway
St. Paul, MN 55110 USA
Phone (651) 429-1100
Fax (651) 429-1122
- **Information department:** regulatory@cortecvci.com
- **Emergency telephone number:**
Spill, Leak, Fire, Exposure, or Accident
24 hour CHEMTREC contact:
USA and Canada 1-800-424-9300
International +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS04 Gas cylinder

Press. Gas H280 Contains gas under pressure; may explode if heated.

Simple Asphyxiant May displace oxygen and cause rapid suffocation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS04

- **Signal word** Warning
- **Hazard statements**
Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.
- **Precautionary statements**
Protect from sunlight. Store in a well-ventilated place.
- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

(Contd. on page 2)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 1)

· **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
1,1,1,2-Tetrafluoroethane
- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.
- **Dangerous components:** Void
- **Additional information** For the wording of the listed risk phrases refer to section 16.

4 First-aid measures

- **Description of first aid measures**
- **After inhalation** Supply fresh air; consult doctor in case of complaints.
- **After skin contact** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing** If symptoms persist consult doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**



Wear protective equipment. Keep unprotected persons away.

- **Environmental precautions:** No special measures required.
- **Methods and material for containment and cleaning up:** No special measures required.
- **Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

USA

(Contd. on page 3)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 2)

7 Handling and storage

- **Handling**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· Components with limit values that require monitoring at the workplace:

1,1,1,2-Tetrafluoroethane (50-100%)
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WEEL Long-term value: 1000 ppm

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment**
- **General protective and hygienic measures** Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Not required.
- **Body protection:** Protective work clothing.

9 Physical and chemical properties

· Information on basic physical and chemical properties
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· General Information

· Appearance:

Form:	Liquefied gas
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Color:	Colorless
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Odor:	Light
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Odour threshold:	Not determined.
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pH-value:	Not determined.
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· Change in condition

Melting point/Melting range:	undetermined
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Boiling point/Boiling range:	-26.2 °C (-15 °F)
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(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 3)

· Flash point:	Not applicable
· Flammability (solid, gaseous)	Not determined.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Not determined.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	5716 hPa (4287 mm Hg)
· Density at 20 °C (68 °F):	1.226 g/cm ³ (10.231 lbs/gal)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water at 20 °C (68 °F):	1.93 g/l
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
dynamic at 20 °C (68 °F):	0.22 mPas
kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	100.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.

(Contd. on page 5)

USA

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 4)

· Additional toxicological information:
· Carcinogenic categories
· IARC (International Agency for Research on Cancer)

IARC Category 3 : Not classifiable as to its carcinogenicity to humans

· NTP (National Toxicology Program)

None of the ingredients is listed.

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

· Toxicity
· Aquatic toxicity: No further relevant information available.

· Persistence and degradability No further relevant information available.

· Behavior in environmental systems:
· Bioaccumulative potential No further relevant information available.

· Mobility in soil No further relevant information available.

· Additional ecological information:
· General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment
· PBT: Not applicable.

· vPvB: Not applicable.

· Other adverse effects No further relevant information available.

13 Disposal considerations

· Waste treatment methods
· Recommendation


Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packagings:
· Recommendation: Disposal must be made according to official regulations.

14 Transport information

· UN-Number
· DOT, IMDG, IATA

UN3159

· ADR

UN3159

Not applicable

· UN proper shipping name
· DOT

1,1,1,2-Tetrafluoroethane

(Contd. on page 6)

USA

Safety Data Sheet

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Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 5)

· ADR	3159 1,1,1,2-Tetrafluoroethane
· IMDG, IATA	1,1,1,2-TETRAFLUOROETHANE (REFRIGERANT GAS R 134a)

· Transport hazard class(es)

· DOT



· Class	2.2
· Label	2.2

· ADR



· Class	2.2
· Label	2.2

· IMDG, IATA



· Class	2 Gases
· Label	2.2

· Packing group Not applicable

· Environmental hazards: Not applicable.

· Special precautions for user Not applicable.

· Danger code (Kemler): 20

· EMS Number: F-C,S-V

· Transport in bulk according to Annex II of MARPOL/73/78 and the IBC Code Not applicable.

· Transport/Additional information:

· ADR

· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
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· IMDG

· Limited quantities (LQ)	120 ml
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation": UN3159, 1,1,1,2-Tetrafluoroethane, 2.2

USA

(Contd. on page 7)

Safety Data Sheet

acc. to OSHA HCS

Printing date 07/30/2015

Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 6)

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- **SARA Section 355 (extremely hazardous substances)**

None of the ingredients is listed.

- **SARA Section 313 (specific toxic chemical listings)**

None of the ingredients is listed.

- **TSCA (Toxic Substances Control Act) (-)**

All ingredients are listed.

- **Prop 65 - Chemicals known to cause cancer**

None of the ingredients is listed.

- **Carcinogenicity categories**

- **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **Canadian Domestic Substances List (DSL) (-)**

All ingredients are listed.

- **Philippines Inventory of Chemicals and Chemical Substances (-)**

All ingredients are listed.

- **Chinese Chemical Inventory of Existing Chemical Substances (-)**

All ingredients are listed.

- **Australian Inventory of Chemical Substances (-)**

All ingredients are listed.

- **New Zealand Inventory of Chemicals (-)**

All ingredients are listed.

- **Existing Chemical Substances (-)**

All ingredients are listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS04

- **Signal word** Warning

- **Hazard statements**

Contains gas under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

- **Precautionary statements**

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

- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

USA

(Contd. on page 8)

Safety Data Sheet

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Reviewed on 07/30/2015

Trade name: Rawn Super Freeze

(Contd. of page 7)

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Cortec Corporation does not warranty any translation of this SDS not created by Cortec Corporation.

· **Date of preparation / last revision** 07/30/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Press. Gas: Gases under pressure: Liquefied gas

· *** Data compared to the previous version altered.**

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