

SAFETY DATA SHEET

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NGHS / English



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1. IDENTIFICATION

Product identifier

Product Name Danby Refrigeration Products - R32

Other means of identification

Product Code(s) 1513231

Recommended use of the chemical and restrictions on use

Recommended Use Appliance containing Compressed Gas (not Freon)

Restrictions on use No information available

Details of the supplier of the safety data sheet

Supplier Identification Danby Products Ltd.

Address 1800 Production Dr
5070 Whitelaw Rd
Findlay
Ohio
45840
US

Telephone Phone:1-800-263-2629
Fax:519-837-0449

E-mail ddaugherty@danby.com

Emergency telephone number

Company Emergency Phone Number 1-800-263-2629 ext 261

2. HAZARDS IDENTIFICATION

Classification

| | |
|----------------------|---------------|
| Flammable gases | Category 1 |
| Gases under pressure | Liquefied Gas |



Appearance Clear**Physical state** Gas**Odor** Odorless**GHS Label elements, including precautionary statements****Danger****Hazard statements**

Extremely flammable gas

Contains gas under pressure; may explode if heated

**Precautionary Statements - Prevention**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

Precautionary Statements - Response**Skin**

Eliminate all ignition sources if safe to do so

Fire

Leaking gas fire: Do not extinguish, unless leak can be stopped safely

Precautionary Statements - Storage

Store in well-ventilated place

Protect from sunlight. Store in a well-ventilated place

Other information**Unknown acute toxicity** 100 % of the mixture consists of ingredient(s) of unknown toxicity

100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity

100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)

100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

3. COMPOSITION/INFORMATION ON INGREDIENTS**Substance**

| Chemical name | CAS No. | Weight-% | Hazardous Material Information Review Act registry number (HMIRA registry #) | Date HMIRA filed and date exemption granted (if applicable) |
|--------------------|---------|----------|--|---|
| Methylene fluoride | 75-10-5 | 100 | - | - |

4. FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|---|
| General advice | In case of rupture: Do not get in eyes, on skin, or on clothing. Do not breathe dust/fume/gas/mist/vapors/spray. |
| Inhalation | Remove to fresh air. If breathing is difficult, (trained personnel should) give oxygen. If not breathing, give artificial respiration. |
| Eye contact | Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Seek immediate medical attention/advice. |
| Skin contact | In case of contact with liquefied gas, thaw frosted parts with lukewarm water. |
| Ingestion | Not an expected route of exposure. Call a physician immediately. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---------------------------|
| Symptoms | No information available. |
|-----------------|---------------------------|

Indication of any immediate medical attention and special treatment needed

| | |
|---------------------------|--|
| Note to physicians | A patient adversely affected by exposure to this product should not be given adrenaline (epinephrine) or similar heart stimulant since these would increase the risk of cardiac arrhythmias. |
|---------------------------|--|

5. FIRE-FIGHTING MEASURES

| | |
|---|--|
| Suitable Extinguishing Media | Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Large Fire | CAUTION: Use of water spray when fighting fire may be inefficient. |
| Unsuitable extinguishing media | DO NOT EXTINGUISH A LEAKING GAS FIRE UNLESS LEAK CAN BE STOPPED. |
| Specific hazards arising from the chemical | Cylinders may rupture under extreme heat. Damaged cylinders should be handled only by specialists. Containers may explode when heated. Ruptured cylinders may rocket. Some may burn, but not ignite readily. |
| Hazardous Combustion Products | Carbon oxides. |
| Explosion Data | |
| Sensitivity to Mechanical Impact | Yes. |
| Sensitivity to Static Discharge | NONE. |
| Special protective equipment for fire-fighters | Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment. |

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|-----------------------------|--|
| Personal precautions | Stop leak if you can do it without risk. |
| Other Information | Ventilate the area. |

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for containment | If possible, turn leaking containers so that gas escapes rather than liquid. |
| Methods for cleaning up | Do not direct water at spill or source of leak. |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|--------------------------------|--|
| Advice on safe handling | Do not breathe vapor or mist. Do not smoke. Use with local exhaust ventilation. Do not puncture or incinerate cans. Do not stick pin or any other sharp object into opening on top of can. Do not breathe dust/fume/gas/mist/vapors/spray. |
|--------------------------------|--|

Conditions for safe storage, including any incompatibilities

| | |
|---------------------------|---|
| Storage Conditions | Keep containers tightly closed in a dry, cool and well-ventilated place. Protect from sunlight. Keep away from open flames, hot surfaces and sources of ignition. |
|---------------------------|---|

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

| | |
|------------------------|---|
| Exposure Limits | This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
|------------------------|---|

Appropriate engineering controls

| | |
|-----------------------------|---|
| Engineering controls | Showers Eyewash stations Ventilation systems. |
|-----------------------------|---|

Individual protection measures, such as personal protective equipment

| | |
|---------------------------------------|--|
| Eye/face protection | No special protective equipment required. |
| Skin and body protection | No special protective equipment required. |
| Respiratory protection | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. |
| General hygiene considerations | Handle in accordance with good industrial hygiene and safety practice. |

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | |
|-----------------------|--------------------------|
| Physical state | Gas |
| Appearance | Clear |
| Odor | Odorless |
| Color | No information available |
| Odor Threshold | Not applicable |



| <u>Property</u> | <u>Values</u> | <u>Remarks Method</u> |
|---|--------------------------|-----------------------|
| pH | No data available | None known |
| Melting / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | None known |
| Flash Point | No data available | None known |
| Evaporation Rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability limit | No data available | |
| Lower flammability limit | No data available | |
| Vapor pressure | No data available | None known |
| Vapor density | No data available | None known |
| Relative density | 1 | |
| Water Solubility | Insoluble | |
| Solubility(ies) | No data available | None known |
| Partition coefficient: n-octanol/water ¹ | | |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | No data available | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| <u>Other Information</u> | | |
| Explosive properties | No information available | |
| Oxidizing properties | No information available | |
| Softening Point | No information available | |
| Molecular Weight | No information available | |
| VOC Content (%) | No information available | |
| Liquid Density | No information available | |
| Bulk Density | No information available | |
| Particle Size | No information available | |
| Particle Size Distribution | No information available | |

10. STABILITY AND REACTIVITY

| | |
|---|---|
| Reactivity | No information available. |
| Chemical stability | Stable under normal conditions. |
| Possibility of Hazardous Reactions | None under normal processing. |
| Hazardous Polymerization | Hazardous polymerization does not occur. |
| Conditions to avoid | Excessive heat. |
| Incompatible materials | None known based on information supplied. |
| Hazardous Decomposition Products | Carbon oxides. |

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

| | |
|----------------------------|---|
| Product Information | Product does not present an acute toxicity hazard based on known or supplied information In case of rupture: |
| Inhalation | In high concentration the gas may cause a suffocation. Victim may not be aware of |

asphyxiation. Intentional misuse by deliberately concentrating and inhaling contents may be harmful or fatal. May cause drowsiness or dizziness.

| | |
|---------------------|---|
| Eye contact | Specific test data for the substance or mixture is not available. Contact with product may cause frostbite. |
| Skin contact | Specific test data for the substance or mixture is not available. Contact with product may cause frostbite. |
| Ingestion | Specific test data for the substance or mixture is not available. Not an expected route of exposure. |

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Numerical measures of toxicity

Acute Toxicity

Unknown acute toxicity 100 % of the mixture consists of ingredient(s) of unknown toxicity
 100 % of the mixture consists of ingredient(s) of unknown acute oral toxicity
 100 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)
 100 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|--------------------|-----------|-------------|---|
| Methylene fluoride | - | - | > 520000 ppm (Rat) 4 h = 1890 g/m ³ (Rat) 4 h |

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|---------------------------|
| Skin corrosion/irritation | No information available. |
| Serious eye damage/eye irritation | No information available. |
| Respiratory or skin sensitization | No information available. |
| Germ cell mutagenicity | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| STOT - single exposure | No information available. |
| STOT - repeated exposure | No information available. |
| Aspiration hazard | No information available. |

12. ECOLOGICAL INFORMATION

Ecotoxicity The environmental impact of this product has not been fully investigated.



| | |
|--------------------------------------|------------------------------------|
| Persistence and Degradability | No information available. |
| Bioaccumulation | There is no data for this product. |
| Mobility | No information available. |
| Other adverse effects | No information available. |

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|--|---|
| Waste from residues/unused products | Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation. |
| Contaminated packaging | Do not reuse empty containers. |
| US EPA Waste Number | D001 |
| California Waste Codes | 331 |

14. TRANSPORT INFORMATION

| | |
|-----------------------------|---------------|
| <u>DOT</u> | NOT REGULATED |
| Proper Shipping Name | NON-REGULATED |
| Hazard Class | N/A |
| <u>TDG</u> | Not regulated |
| <u>MEX</u> | Not regulated |
| <u>ICAO</u> | Not regulated |
| <u>IATA</u> | Not regulated |
| Proper Shipping Name | NON REGULATED |
| Hazard Class | N/A |
| <u>IMDG/IMO</u> | Not regulated |
| Hazard Class | N/A |
| <u>RID</u> | Not regulated |
| <u>ADR</u> | Not regulated |
| <u>ADN</u> | Not regulated |

15. REGULATORY INFORMATION

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

International Regulations

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable



The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

International Inventories

| | |
|----------------------|---|
| TSCA | Contact supplier for inventory compliance status. |
| DSL/NDSL | Contact supplier for inventory compliance status. |
| EINECS/ELINCS | Contact supplier for inventory compliance status. |
| ENCS | Contact supplier for inventory compliance status. |
| KECL | Contact supplier for inventory compliance status. |
| PICCS | Contact supplier for inventory compliance status. |
| AICS | Contact supplier for inventory compliance status. |

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications. Under the amended regulations at 40 CFR 370, EPCRA 311/312 Tier II reporting for the 2017 calendar year will need to be consistent with updated hazard classifications.

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Chemical name | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|-------------------------------|-----------------------------|------------------------|---------------------------|----------------------------|
| Methylene fluoride 75-10-5 | | X | | |

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

This product may contain substances regulated by state right-to-know regulations.



| Chemical name | New Jersey | Massachusetts | Pennsylvania | Rhode Island | Illinois |
|-------------------------------|------------|---------------|--------------|--------------|----------|
| Methylene fluoride 75-10-5 | | | X | | |

16. OTHER INFORMATION

| | | | | |
|-------------|-------------------------|-----------------------|---------------------------|---|
| NFPA | Health hazards 1 | Flammability 3 | Instability 0 | Physical and Chemical Properties - |
| HMIS | Health hazards 1 | Flammability 3 | Physical hazards 0 | Personal Protection X |

Prepared By Product Stewardship
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Revision Note No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of Safety Data Sheet