



MSDS - Material Safety Data Sheet

I. Basic Information:

Manufacturer: RADIATOR SPECIALTY COMPANY

Contact: Robert Geer

Address: 600 RADIATOR ROAD

Information Telephone Number: 704-684-1811

City, ST Zip: INDIAN TRAIL, NC 28079

Emergency Contact: Rocky Mountain Poison Control Center

Emergency Telephone Number: 303-623-5716

Country:

Emergency Restrictions:

Product Name: GUNK INDUSTRIAL CONTACT CLEANER

MSDS No.: PD11CC

Issue Date: 12/31/2007

Supersedes Date: 03/26/2007

II. Hazards Identification:

EMERGENCY OVERVIEW

Extremely Flammable, Harmful or Fatal if Swallowed. Eye and Skin Irritant. Contents Under Pressure.

Level 3 Aerosol

OSHA Regulatory Status

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential Health Effects

Route(s) of Entry:

Absorption, Eye, Inhalation, and Ingestion.

Health Hazards (Acute and Chronic):

See signs and symptoms below

Signs and Symptoms:

Eye Contact: Irritant. Prolonged contact may cause conjunctivitis.

Skin Contact: Irritant. Defatting of tissue, dermatitis may occur.

Inhalation: Irritant to mucous membranes. Repeated exposure may cause narcosis.

Ingestion: HARMFUL OR FATAL IF SWALLOWED.

Medical Conditions Generally Aggravated by Exposure:

None Known

Other Health Warnings:

Vomiting and subsequent aspiration into the lungs may lead to chemical pneumonia and pulmonary edema, which is a potentially fatal condition.

Potential Environmental Effects

Not Available

III. Composition/Information on Ingredients:

Chemical Name	CAS No.	% Range	Trade Secret
Heptane	142-82-5	60.0 - 100.0	
Difluoroethane	75-37-6	10.0 - 30.0	

MSDS - Material Safety Data Sheet**IV. First Aid Measures:****Emergency and First Aid Procedures:**

Eye Contact: Flush eyes with clean water for 15 minutes while lifting eyelids. Get prompt medical attention.
 Skin Contact: Wash with soap and water thoroughly. If adverse effects persist, get prompt medical attention. Launder contaminated clothing before reuse.
 Inhalation: Remove to fresh air. If breathing becomes difficult give oxygen and get prompt medical attention. If breathing stops, give artificial respiration and get prompt medical attention.
 Ingestion: DO NOT INDUCE VOMITING! Call Poison Control Center, physician, or hospital emergency room immediately. Aspiration of vomitus into the lungs can cause pneumonitis, which can be fatal.

Note to Physicians:

N/E

V. Fire Fighting Measures:**Suitable Extinguishing Media:**

Water Fog, Foam, Carbon Dioxide, and Dry Chemical

Unsuitable Extinguishing Media:

Do not use forced water stream as this could cause the fire to spread.

Products of Combustion:

Carbon dioxide, carbon monoxide, and various hydrocarbons

Protection of Firefighters:

Wear self-contained positive pressure breathing apparatus and protective clothes. At elevated temperatures containers may vent, rupture or burst, even violently. Use shield to protect from rupturing and venting containers.

VI. Accidental Release Measures:**Personal Precautions:**

Eliminate all ignition sources. Persons not wearing protective equipment should be excluded from area of spill until clean up has been completed.

Environmental Precautions:

Prevent run-off to sewers, streams, or other bodies of water. If run-off occurs, notify proper authorities as required that a spill has occurred. Run off to sewer may create fire or explosion hazard.

Methods for Containment:

Dike or contain spill and absorb with inert materials (dry earth, sand, sawdust, absorbent sweeping compounds, rags, etc).

Methods for Cleanup:

Using a non-metallic scoop, place contaminated material into an approved chemical waste container. Where possible, vacuum spilled liquid using an explosion proof vacuum to recover material.

Other Information:

All equipment used with handling the concentrate must be grounded. If run-off occurs, notify proper authorities as required that a spill has occurred.

VII. Handling and Storage:**Handling Precautions:**

Handling Use with adequate ventilation and proper protective equipment. Do not use near fire, sparks, or flame. Do not puncture or incinerate container. Avoid contact with eyes. Avoid prolonged or repeated breathing of vapors. If exposure may or does exceed occupational exposure limits, use a NIOSH approved respirator to prevent over-exposure. Avoid contact with eyes. Keep Away From Children and Animals.

Storage Precautions:

Store in cool, well-ventilated area below 120°F away from heat, fire, sparks or flame.

VIII. Exposure Controls/Personal Protection:

Chemical Name	OSHA PEL	ACGIH TLV	Other Limits
Heptane	400 ppm	400 ppm	Not Available
Difluoroethane	N/E	N/E	Not Available

Engineering Controls:

See Section 2 for applicable exposure limits. Use with adequate ventilation. If TLV is exceeded, wear NIOSH approved respirator.

Personal Protective Equipment:

See Section 2 for applicable exposure limits. For prolonged exposure wear protective safety glasses, gloves, and apron.

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IX. Physical and Chemical Properties:

Boiling Point: 318°F

Boiling Range: N/E

Solubility In Water: Emulsifies

Flash Point: < 0°F

Odor Threshold: N/E

Vapor Density (AIR = 1): N/D

pH Range: N/A

Decomposition Temp: N/A

Lower Explosive Limit: N/E

Specific Gravity (H₂O = 1): 0.77

Other Information: N/D

Melting Point: N/A

Freezing Point: N/E

Evaporation Rate (Butyl Acetate = 1): N/D

Flash Point Method: Calculated

Appearance and Odor: Water white clean liquid with petroleum odor

Vapor Pressure (mm Hg.): N/D

Partition Coefficient: N/A

Auto-ignition Temp: N/A

Upper Explosive Limit: N/E

X. Stability and Reactivity:

Stability:

Stable

Conditions to Avoid:

Avoid heat, sparks, and flames. Avoid incompatible materials.

Incompatible Materials:

Strong oxidizing agents.

Hazardous Decomposition Products:

High temperatures and ignition sources produce products of combustion: carbon dioxide, carbon monoxide and various hydrocarbons.

Possibility of Hazardous Reactions:

Will not occur.

XI. Toxicological Information:

N/D

XII. Ecological Information:

N/D

XIII. Disposal Considerations:

DISPOSAL: This container may be recycled in aerosol recycling centers when empty. Before offering for recycling, empty the can by using the product according to the label. DO NOT PUNCTURE! If recycling is not available, wrap the container and discard in the trash. Dispose of unused product in accordance with all local, state government and federal laws and regulations.

XIV. Transport Information:

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Shipping Name: Consumer Commodity
DOT Hazard Class: ORM-D

The DOT description is provided to assist in the proper shipping classification of this product and may not be suitable for international and air shipping purposes.

ICAO/IATA (US)
UN number: UN1950
Shipping Name: Aerosols
Class: 2.1

International:

ICAO/IATA
UN number: UN1950
Shipping Name: Aerosols
Class: 2.1

IMDG
UN number: UN1950
Shipping Name: Aerosols
Class: 2.1
EMS: F-D, S-U

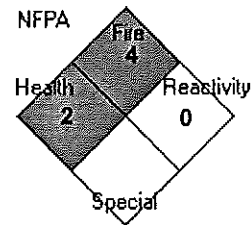
XV. Regulatory Information:

See Section 2 for SARA Reportable Chemicals.

USA TSCA: All components of this material are listed on the US TSCA Inventory.

XVI. Other Information:

Chemical State: Liquid Gas Solid
Chemical Type: Pure Mixture
Hazard Category: Acute Chronic Fire Pressure Reactive

**Additional Manufacturer Warnings:**

Do not used in confined area without proper ventilation. Contact lenses may cause further damage in case of splash into eye. KEEP AWAY FROM CHILDREN AND ANIMALS!

N/E: Not Established
N/D: Not Determined
N/A: Not Applicable
N/AV: Not Available

Additional Product Information:

While Radiator Specialty Company believes this data is accurate as of the revision date, we make no warranty with respect to the data and we expressly disclaim all liability for reliance thereon. The data is offered solely for information, investigation, and verification. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product, which may not be covered by this MSDS. The user is responsible for full compliance.

2	Health
4	Flammability
0	Physical Hazard
B	Pers. Protection