



TULSTAR PRODUCTS, INC.

5510 SOUTH LEWIS AVENUE • TULSA, OK 74105 • (918) 749-9060 • FAX (918) 747-1444
TULSTAR@TULSTAR.COM • WWW.TULSTAR.COM

1 Section I

*** GENERAL INFORMATION ***

Tulstar Products, Inc.

5510 S. Lewis Ave.

Tulsa, OK 74105

Phone 918/749-9060; FAX 918/747-1444

Chemical Name: Difluoromethane
Synonyms: Refrigerant 32; R-32; HFC-32
Chemical Family: Hydrofluoroalkane
Formula: CH₂F₂

CAS#: [75-10-5]
MW: 52.03

2 Section II

*** HAZARDOUS INGREDIENTS/IDENTITY INFORMATION ***

HAZARDOUS COMPONENTS	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Difluoromethane	None	None	None	100

3 Section III

*** PHYSICAL & CHEMICAL CHARACTERISTICS ***

BOILING POINT: -51.7°C @ 760 mmHg
VAPOR PRESSURE: 200 psia @ 20°C
VAPOR DENSITY, (AIR=1) >1
SPECIFIC GRAVITY: 1.100 @ 20°C
SOLUBILITY IN WATER Insoluble
APPEARANCE: Clear, colorless gas

EVAPORATION RATE (- =1): NA
MELTING POINT: -136°C

4 Section IV

*** FIRE & EXPLOSION HAZARD DATA ***

FLASH POINT: Not Determined
FLAMMABLE LIMITS: LEL = 12.7% UEL = 33.4%
SPECIAL FIRE FIGHTING PROCEDURES: Shut off cylinder valve, if possible; keep cylinder cool. A self-contained breathing apparatus and full protective clothing should be worn when fighting fires.
UNUSUAL FIRE & EXPLOSION HAZARDS: Fire may cause cylinder to over-pressurize and possibly rupture.
EXTINGUISHING MEDIA: Carbon dioxide, dry chemical, foam

METHOD USED: NA



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5 Section V

*** REACTIVITY DATA ***

STABILITY: Stable.

CONDITIONS TO AVOID: As for other flammable gases.

INCOMPATIBILITY: Strong oxidizers, active metals

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: HF, CO, CO₂ from combustion

HAZARDOUS POLYMERIZATION: Will NOT occur

6 Section VI

*** HEALTH HAZARD DATA ***

ROUTE(S) OF ENTRY: INHALATION? YES SKIN? YES INGESTION? YES

HEALTH HAZARDS (Acute and chronic):

A PAFT V study found difluoromethane to non-toxic and a No observable Effect Level was determined to be 50,000 ppm.

CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO

SIGN & SYMPTOMS OF EXPOSURE: None

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: May aggravate existing heart conditions at greater than 350,000 ppm.

EMERGENCY FIRST AID PROCEDURES:

INHALATION: If breathing is difficult administer oxygen; if breathing has stopped administer artificial respiration.

INGESTION: Not normal route of exposure. Boiling point less than body temperature.

EYE CONTACT: If irritating, flush eye with water for 15 mins and seek medical advice.

SKIN CONTACT: Wash with soap and flush with water for 15 minutes.

7 Section VII

*** PRECAUTIONS FOR SAFE HANDLING AND USE ***

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Evacuate area immediately. Remove all sources of ignition. Ventilate area thoroughly.

WASTE DISPOSAL METHOD: Incinerate in approved facility.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in cool, dry area. Ground transfer lines.



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8 Section VIII

***** CONTROL MEASURES *****

RESPIRATORY PROTECTION (SPECIFY TYPE): Unnecessary unless concentration sufficient to lower oxygen to concentration likely to cause suffocation.

VENTILATION: Local (mechanical) exhaust required

PROTECTIVE GLOVES: Rubber or neoprene

EYE PROTECTION: Safety glasses or splash goggles

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: As required by your employer.

WORK/HYGENIC PRACTICES: General laboratory procedures.

9 Section XI

***** REGULATORY INFORMATION *****

UN# 3252, Hazard Class 2.1

DOT SHIPPING NAME: Difluoromethane

LISTS:

RCRA:

CERCLA:

SARA 312 HAZARD CLASS:

SARA 313:

WHIMS: Health (0); Flammability (2); Reactivity (1)

TSCA: Yes

EINICS:

NEW JERSEY RTK:

N/A = Not available

NA = Not applicable