



Material Safety Data Sheet

“Dymel” 152a – CAS#75-37-6
(“DYMEL” is a registered trademark of DuPont)

1. Chemical Product and Company Identification

Product Trade Name: “Dymel” 152a
Chemical Family: Ethane, 1,1-Difluoro
FSP Model No: DPS, DPSX, DPSR, DPSRX, DPSXL, DPSXLX, DSXLP, DSXLXP, DSXLXP3, DSXLXP3P, DSXLP3PMX, DSXLPX4P, DPSJB, DPSJC, DPSJBX, DPSMB, DPSMW, DPSJMB, DPSJMB2, DPSXL12, DSXLPW, DCPJB, FGS, FGSX, FGSR, FGSRX, CDS, CDSR

Chemical Manufacturer: Dupont
Address: 1007 Market Street
Wilmington, DE 19898 USA
Phone: 1-800-441-7515

Product Manufacturer: Falcon Safety Products, Inc.
Address: 25 Imclone Drive
Branchburg, NJ 08876
Phone: 1-908-707-4900

Emergency Telephone:

2. Composition/Information on Ingredients

Chemical Name	CAS-No.	EC-No.	Classification	Concentration [%]
1,1-Difluoroethane (R152a)	75-37-6	200-866-1	F+; R12	>=99

For the full text of the R phrases mentioned in this Section, see Section 16.

3. Hazard Identification

Extremely flammable.

Potential Health Effects:

Inhalation of high concentrations of vapor is harmful and may cause heart irregularities, unconsciousness, or death. Intentional misuse or deliberate inhalation may cause death without warning. Vapor reduces oxygen available for breathing and is heavier than air. Liquid contact can cause frostbite.

Human Health Effects:

Higher exposures may lead to irritation of nose, throat, and lungs with cough, difficulty breathing or shortness of breath, temporary alteration of the heart’s electrical activity with irregular pulse, palpitations, or inadequate circulation, or abnormal kidney function as detected by laboratory tests. Gross overexposure may be fatal.

Medical Conditions Aggravated by Exposure:

Individual with preexisting diseases of the central nervous, cardiovascular system, lungs, or kidneys may have increased susceptibility to the toxicity of excessive exposures.

4. First Aid Measures

General advice:

If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Inhalation: Move to fresh air. Keep patient warm and at rest. Artificial respiration and/or oxygen may be necessary.

Skin contact: Wash off with warm water. Take off all contaminated clothing immediately.

Eye contact: Rinse thoroughly with plenty of water, also under the eyelids. Consult a physician.

NOTES TO PHYSICIAN

Treatment: Do not give adrenaline or similar drugs.

Material Safety Data Sheet

“Dymel” 152a – CAS#75-37-6

(“DYMEL” is a registered trademark of DuPont)

5. Firefighting Measures

Flash Point: <-50°C (<-58°F)
Auto ignition Temperature: 454°C (849°F)
Flammable Limits in Air: LEL/UEL: 3.9-16.9 (% by volume)
Fire and Explosion Hazards: Aerosol Cans may erupt with force at temperatures above 49° C (120° F)
HFC 152a fire decomposition by-products will include hydrofluoric acid, and possibly carbonyl fluoride. Avoid contact with these materials, which are toxic and irritating. Evacuate personnel immediately in the event of a fire involving HFC-152a.

Extinguishing Media: Water Spray, Water fog, Dry Chemical, Carbon dioxide. “Alcohol” foam.

Special Firefighting Procedures:

Cool cans with water spray. If gas exiting can ignites, stop flow of gas. Do not put out fire unless leak can be stopped. Self-contained breathing apparatus (SCBA) is required if containers rupture and contents are released under fire conditions, appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

6. Accidental Release Measures

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Spill or Leak: Although the chances of a large spill or leak are unlikely in aerosol containers. If a spill can cause a concentration in excess of 1,000 ppm, stop flow and remove ignition sources. Evacuate area. Ventilate area, especially low places where heavy vapors might collect. Wear self-contained breathing apparatus (SCBA).

If this product is spilled and not recovered, or is recovered as a waste for treatment or disposal, the CERCLA Reportable Quantity is 100 lbs. (Release of an unlisted Hazardous Waste characteristic of ignitability).

7. Handling and Storage

HANDLING

Advice on safe handling:

Provide sufficient air exchange and/or exhaust in work rooms. For personal protection see section 8.

Advice on protection against fire and explosion:

Vapors may form explosive mixtures with air. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition. When using do not smoke.

STORAGE

Requirements for storage:

Keep container tightly closed in a dry and well-ventilated place. Store cans in upright position.

Advice on common storage:

No materials to be especially mentioned.

8. Exposure Controls/Personal Protection

Engineering measures

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Respiratory protection:

For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Vapors are heavier than air and can cause suffocation by reducing oxygen available for breathing.

Hand protection:

Heat insulating gloves

Eye protection:

Safety glasses

Hygiene measures:

Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

Form:	liquefied gas,
Color:	colorless,
Odor:	slight, ether-like,
pH:	neutral
Melting point/range:	-117 °C at 1 013 hPa
Boiling point/range:	-24,7 °C at 1 013 hPa
Flash point:	-50 °C
Ignition temperature:	455 °C
Lower explosion limit:	3,7 %(V)
Upper explosion limit:	20,2 %(V)
Vapor pressure:	5 166 hPa at 20 °C
Vapor pressure:	5 960 hPa at 25 °C
Vapor pressure:	6 888 hPa at 30 °C
Vapor pressure:	7 584 hPa at 38 °C
Vapor pressure:	11 750 hPa at 50 °C
Density:	0,9 g/cm ³ at 25 °C, (as liquid)
Density:	1,033 g/cm ³ at -30 °C, (as liquid)
Density:	0,0033 g/cm ³ at -24,7 °C (1 013 hPa)
Density:	0,0027 g/cm ³ at 25 °C (1 013 hPa)
Density:	0,0029 g/cm ³ at 0 °C (1 013 hPa)
Density:	1,011 g/cm ³ at -24,7 °C, (as liquid)
Relative density:	2,4
Water solubility:	0,2 g/l at 25 °C at 1 013 hPa

10. Reactivity

Materials to avoid:

Alkali metals, alkaline earth metals, powdered metals, powdered metal salts

Hazardous decomposition products:

Carbon monoxide, carbon dioxide (CO₂), halogenated compounds, hydrogen halides, hydrogen fluoride

11. Toxicological Information

Acute inhalation toxicity 1,1-Difluoroethane(R152a):

LC50/2 h/rat:	> 539,5 mg/l
LC50/2 h/mouse:	960 mg/l
LC50/2 h/rat:	> 539,5 mg/l
LC50/2 h/mouse:	960 mg/l

Carcinogenicity assessment:

Animal testing did not show any carcinogenic effects.

Toxicity to reproduction assessment:

Did not show mutagenic or teratogenic effects in animal experiments.

Human experience:

Excessive exposures may affect human health, as follows:

Inhalation:

Severe shortness of breath, narcosis, Irregular cardiac activity

Further information:

Cardiac sensitization threshold limit : 405 520 mg/m³

Anesthetic effects threshold limit : 540 695 mg/m³

Rapid evaporation of the liquid may cause frostbite.

Material Safety Data Sheet

“Dymel” 152a – CAS#75-37-6
(“DYMEL” is a registered trademark of DuPont)

12. Ecological Information

Ozone depletion potential: 0
Global warming potential (CO₂ = 1): 120

13. Disposal Considerations

Product: Can be used after re-conditioning.
Contaminated packaging: Empty pressure vessels should be disposed of according to local and federal regulations.

14. Transportation Information

ADR

Class: 2
Classification Code: 5F
UN-No: 1950
Labeling FLAMMABLE GAS
Proper shipping name: Aerosols

IATA_C

Class: 2.1
UN-No: 1950
Labeling FLAMMABLE GAS
Proper shipping name: Aerosols

IMDG

Class: 2
UN-No: 1950
Labeling FLAMMABLE GAS
Proper shipping name: Aerosols

EMS

F-D, S-U

15. Regulatory Information

Labeling according to EC Directives

Symbol(s): F+ Extremely flammable
R-phrases: R12 Extremely flammable.
S-phrases: S 9 Keep container in a well-ventilated place.
S16 Keep away from sources of ignition - No smoking.
S33 Take precautionary measures against static discharges.

16. Other Information

Text of R phrases mentioned in Section 2
R12 Extremely flammable.

Falcon Safety Products, Inc. expressly disclaim all express or implied warranties for merchantability and fitness for a particular purpose, with respect to the product or information provided herein.

All information appearing herein is based upon data obtained from the manufacturer. While the information is believed to be accurate, Falcon Safety Products, Inc. makes no representation as to its accuracy or sufficiency. Conditions of use are beyond Falcon Safety Products, Inc. control and therefore users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risk of their use, handling and disposal of the product, or from the publication, or use of, or reliance upon, information contained herein. This information relates only to the product designated here and does not relate to its use in combination with any other material or in any other process. This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.



Signature

Dermot McLeer
Printed Name

Technical Manager
Title

1/10/2008
Revision Date

Material Safety Data Sheet

“Dymel” 152a – CAS#75-37-6

(“DYMEL” is a registered trademark of DuPont)