402B **(AEROSOL)**

Safety Data Sheet

Section 1: Identification

Product Identifier and Other Means of Identification

Product Identifier: 402B

Other Means of Identification: Super Duster™ 152

Related Part # 402B-285G, 402B-400G, 402BP-340G, 402BP-450G, 853000, 402B-340GLD, 402B-450GLD

Recommended Use and Restriction on Use

Use: Aerosol duster

Uses Advised Against: Avoid spraying can in an inverted position.

Details of Manufacturer or Importer

Manufacturer

MG Chemicals
1210 Corporate Drive
Burlington, Ontario L7L 5R6
CANADA

☎ +1-800-340-0772
FAX +1-800-340-0773
E-MAIL sds@mgchemicals.com
WEB www.mgchemicals.com

☎ +1-905-331-1396
E-MAIL support@mgchemicals.com

E-MAIL (Competent Person): sds@mgchemicals.com

Emergency Phone Number

For hazardous material incidents ONLY (leaks, spills, fires, exposures or accidents)
USA or CANADA—Call Verisk 3E at ***+1-866-519-4752*** or ***+1-760-476-3962***
(Service access code: 335388)

For emergencies involving the transport of dangerous goods; 24/7 service
CANADA—Call CANUTEC collect at ***+1-613-996-6666*** or ****666*** on cellular phones

Section 2: Hazard(s) Identification

Classification of Hazardous Chemical

GHS Categories

Criteria	Category	Signal Word	Pictograms
Flammable Aerosol	2	Warning	Flame
Gas Under Pressure	Liquefied Gas	Warning	Gas Cylinder

Note 1: The degree of severity is ranked within each hazard class from 1 (Highest Severity) to up to 5 (Lowest Severity). Severity categories do not allow comparisons between classes.

Label Elements

Signal Word	**WARNING**
Pictograms	**Hazard Statements**
	H223: Flammable aerosol
	H280: Contains gas under pressure; may explode if heated
Prevention	**Precautionary Statements**
P102	Keep out of reach of children.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on open flames or other ignition source.
P251	Pressurized Container: Do not pierce or burn, even after use.
	HOLD CAN UPRIGHT to avoid ejection of liquid stream during use.

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Storage	Precautionary Statements
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F]. Store in well-ventilated places.

Hazards Not Otherwise Classified

HCS2012 Criteria	Hazard Statements/Precautionary Statement	Signal Word	Pictograms
Simple Asphyxiant	May displace oxygen and cause rapid suffocation.	Warning	None
Other Criteria	**Hazard Statements/Precautionary Statement**	**Signal Word**	**Pictograms**
Specific flammability	Liquid form is flammable. (Liquid form can be ejected if the aerosol can is not held upright during use.)	Warning	None
Frostbite	Skin contact with liquid or aerosol jet may lead to frostbite	Warning	None
Intentional Overexposure	Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects.	Warning	None

Section 3: Composition/Information on Ingredients

CAS #	Chemical Name	%(weight)
75-37-6	1,1-difluoroethane	>99%

Note: Commonly referred to as HFC-152a

Section 4: First-Aid Measures

Exposure Condition	*GHS Code: Precautionary Statement*
IF IN EYES	P305 + P351 + P338, P336+P315
Immediate Symptoms	*frostbite, cold burns*
Response	Rinse cautiously with lukewarm water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If frostbite occurs: Thaw frosted parts with lukewarm water. Do not use hot water. Do not rub affected area. Get immediate medical attention.
IF ON SKIN	P302 + P353, P336 + P315
Immediate Symptoms	*frostbite, cold burns*
Response	Rinse with lukewarm water. If frostbite occurs: Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical attention.
IF INHALED	P304 + P340, P312
Immediate Symptoms	*signs of extreme exposure include dizziness, drowsiness, heart thumping*
Response	Remove person to fresh air and keep comfortable for breathing. If feeling unwell: Call a POISON CENTRE or doctor.
IF SWALLOWED	P301 + P330, P336 + P315 (*Not a likely route of exposure under normal use*)
Immediate Symptoms	*frostbite (mouth), irritation*
Response	Rinse with lukewarm water. If frostbite occurs: Thaw frosted parts with lukewarm water. Do not rub affected area. Get immediate medical attention.

Advise to Physician

Avoid giving catecholamine drugs (such as epinephrine) due to possible cardiac disturbances. Treat symptomatically.

Section 5: Fire-Fighting Measures

Extinguishing Media	In case of fire: Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Specific Hazards	The vapors are heavier than air and may displace oxygen in low-lying areas creating a suffocation hazard. Aerosol container may erupt with force at temperatures above 50 °C [122 °F]. The liquid form is flammable. Produces irritating and toxic fumes in fires or in contact with hot surfaces.
Combustion Products	Produces carbon oxides (CO, CO_2), hydrofluoric acid (HF), and may produce carbonyl fluorides.
Fire-Fighter	Wear self-contained breathing apparatus and full fire-fighting turn-out gear.

Section 6: Accidental Release Measures

Personal Protection	See personal protection recommendations in Section 8.
Precautions for Response	For aerosol-can spills in confined spaces or low lying areas, leave the immediate spill area. For very large spills, wear self-contained breathing apparatus before approaching the spill. Wear cold-insulating clothing and gloves. If it can safely be done, extinguish open flames or remove high temperature sources to avoid producing toxic decomposition products.
Environmental Precautions	Not applicable
Containment Methods	No containment required under normal circumstances.
Cleaning Methods	Ensure adequate ventilation, especially in low or enclosed areas. Liquid spills will turn gaseous and disperse in the local atmosphere.
Disposal Methods	Dispose of spill waste according to Section 13.

Section 7: Handling and Storage

Prevention	Keep out of reach of children.
	Avoid direct skin or eye contact with liquid or aerosol jet.
	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
	Do not use in confined and poorly ventilated area. In cases of inadequate ventilation, wear respiratory protection.
	Do not pierce or burn, even after use.
Handling	HOLD CAN UPRIGHT to avoid ejection of liquid stream during use. Do NOT spray when container is more than 45 degrees off vertical or inverted.
	Wear cold-insulating gloves if exposure to liquid or aerosol jet is likely. Wear protective eye protection.
Storage	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].

Section 8: Exposure Controls/Personal Protection

Substances with Occupational Exposure Limit Values

Chemical Name	Country	Long Term Exposure Limits (PEL)	Short Term Exposure Limits (STEL)
1,1-difluoroethane	ACGIH U.S.A. OSHA PEL Canada	Not established Not established Not established	Not established Not established Not established

Note: The ACGIH[1], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from the RTECS database[2] and from suppliers' SDSs were also consulted. Short term exposure limits (STEL) are for 15 min and long-term permissible exposure limits (PEL) for 8 h.

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Engineering Controls

Ventilation	Normal ventilation is generally adequate, except in enclosed or low-lying area. Keep airborne concentrations below 0.4% [4 000 ppm] (10% of the lower explosive limit (See Section 9)). Make sure the oxygen content is not enriched.

Personal Protective Equipment

Eye protection	Wear appropriate protective eyeglasses or chemical safety goggles. **RECOMMENDATION:** Use safety glasses with lateral protection (side shields).
Skin Protection	Wear appropriate protective clothing to prevent skin contact. **RECOMMENDATION:** Use cold insulating gloves if contact with liquid jet is likely.
Respiratory Protection	For extreme exposures, use full-face, self-contained breathing apparatus or supplied by air.

General Hygiene Considerations

Not applicable

Section 9: Physical and Chemical Properties

Physical State	Liquefied gas, in aerosol format	**Lower Flammability Limit**	3.9%
Appearance	Colorless	**Upper Flammability Limit**	16.9%
Odor	Slight, ether-like	**Vapor Pressure @20 °C** [a)]	607 kPa [88.0 lb/in^2]
Odor Threshold	Not available	**Vapor Density**	2.3 (Air =1)
pH	Not available	**Relative Density @21 °C**	0.91
Freezing/Melting Point	-117 °C [-179 °F]	**Solubility in Water**	0.27 g/100 mL
Initial Boiling Point	-25 °C [-13 °F]	**Partition Coefficient n-octanol/water** [b)]	0.75
Flash Point	-50 °C [-58 °F]	**Auto-ignition Temperature**	454 °C [849 °F]
Evaporation Rate	Not available	**Decomposition Temperature**	Not available
Flammability	Inflammable	**Viscosity @40 °C**	Not applicable

Note: Literature values are used.
a) gauge pressure
b) Octanol-water LogP value

Section 10: Stability and Reactivity

Reactivity	Not available.
Chemical Stability	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, temperatures above 50 °C [122 °F], and incompatible substances.
Incompatibilities	Alkali or alkali earth metals, powdered metals, powdered metal salts
Polymerization	Will not occur
Decomposition	Will not decompose under normal conditions. For thermal decomposition, see combustion products in Section 5

Section 11: Toxicological Information

Summary of Effects and Symptoms by Routes of Exposure

Eyes	See skin summary.
Skin	Contact with the liquid may cause frostbite due to heat lost caused by rapid evaporation. Aerosol jet can reach sub-zero temperatures; exposure to jet can lead to frostbites.
Inhalation	Extreme exposure due to misuse and inhalation abuse may cause central nervous system depression and irregular heartbeat.
Ingestion	See inhalation and skin summaries.
Chronic	Not applicable

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation
1,1-difluoroethane	Not available	Not available	>437 500 ppm 4 h Rat

Note: Toxicity data from the RTECS[2] and ECHA databases were consulted. The data from supplier SDSs were also consulted.

Skin corrosion/irritation	Based on available data, the classification criteria are not met.
Serious eye damage/irritation	Based on available data, the classification criteria are not met.
Sensitization (allergic reactions)	Based on available data, the classification criteria are not met.
Carcinogenicity (risk of cancer)	Not classified or listed as a carcinogen by IARC, ACGIH, CA Prop 65, or NTP
Mutagenicity (risk of heritable genetic effects)	Based on available data, the classification criteria are not met.
Reproductive Toxicity (risk to sex functions)	Based on available data, the classification criteria are not met.
Teratogenicity (risk of fetus malformation)	Based on available data, the classification criteria are not met.

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STOT-single exposure	Based on available data the classification criteria are not met. At extreme doses, can affect the central nervous system and cardiovascular systems by inhalation. CNS anesthetic effects are based on rat studies with TCLo of 25 pph. Cardiac effects are based on exposure of ≥150 000 ppm in study on dogs. Misuse and inhalation abuse can lead to dizziness, confusion, drowsiness, unconsciousness, irregular heartbeat, heart thumping, apprehension, and weakness.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.

Section 12: Ecological Information

Ecological classifications are based on the IMDG/GHS criteria in conjunction with ecotoxicological data from our suppliers, the European Chemical Agency database (http://echa.europa.eu), and other reliable sources.

The 1,1-difluoroethane substance is not classifiable as an environmental toxicant (with minimal LC50 96 h of 296 mg/L for unspecified fish; 147 mg/L 24 h Daphnia magna (water flea); 48 mg/L calculated for algae).

Acute Ecotoxicity

Available toxicity data does not meet classification thresholds

Chronic Ecotoxicity

Not data available

Biodegradability

Not data available

Other Effects

Global Warming Potential

The 100 years global warming potential is 120.

Volatile Organic Compound

VOC exempt compound by EPA and CEPA regulations

Section 13: Disposal Information

Dispose of contents in accordance with all local, regional, national, and international regulations.

Section 14: Transport Information

Ground

Refer to TDG regulations (Canadian Transportation of Dangerous Goods regulations)**; USA DOT 49 CFR** (Parts 100 to 185) **Regulations.**	
DOT-SP 11516 INSIDE CONTAINERS COMPLY WITH PRESCRIBED SPECIFICATIONS	CANADA and USA only (*other jurisdictions differ*) **UN number**: UN1030 **Shipping Name:** 1,1-DIFLUOROETHANE **Class:** 2.1 **Packing Group**: Not applicable **Marine Pollutant**: No
CANADA—Permit for Equivalent Level of Safety: Refer to TC-SU 13908.	
USA—Special Provision: Refer to DOT-SP 11516 for requirements and exceptions regarding shipping paper, labeling, and markings.	

Air

Refer to ICAO-IATA Dangerous Goods Regulations.	
DOT-SP 11516 INSIDE CONTAINERS COMPLY WITH PRESCRIBED SPECIFICATIONS	CARGO AIRCRAFT ONLY **UN number**: UN1030 **Shipping Name:** 1,1-DIFLUOROETHANE **Class:** 2.1 **Packing Group**: Not applicable **Marine Pollutant**: No 
USA—Special Provision: Refer to DOT-SP 111516.	

Note: Avoid shipping by air if possible.

Sea

Refer to IMDG Dangerous Goods Regulations.	
DOT-SP 11516 INSIDE CONTAINERS COMPLY WITH PRESCRIBED SPECIFICATIONS	CANADA and USA only (*other jurisdictions differ*) **UN number**: UN1030 **Shipping Name:** 1,1-DIFLUOROETHANE **Class:** 2.1 **Packing Group**: Not applicable Marine Pollutant: No
CANADA—Permit for Equivalent Level of Safety: Refer to TC-SU 13908.	
USA—Special Provision: Refer to DOT-SP 11516 for requirements and exceptions regarding shipping paper, labeling, and markings.	

Note: **Shipper must be appropriately <u>trained and certified</u> before involvement with the transport of dangerous goods.**

Section 15: Regulatory Information

Canada

Domestic Substance List (DSL) / Non-Domestic Substance Lists (NDSL)

All hazardous ingredients are listed on the DSL/NDSL.

Hazardous Products Act (R.S.C., 1985, c. H-3)

The safety data sheet and label comply with the Hazardous Product Act and WHMIS 2015.

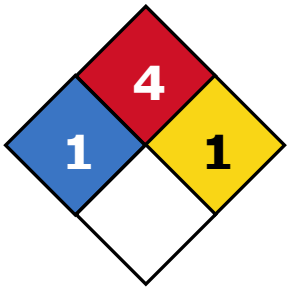
USA

Other Classifications

HMIS® RATING

HEALTH:	* 1
FLAMMABILITY:	4
PHYSICAL HAZARD:	1
PERSONAL PROTECTION:	

NFPA® 704 CODES [a)]



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)
a) Liquid classification; for aerosols, NFPA 30B flammability rating is 1.

CAA (Clean Air Act, USA)

This product does not contain any class 1 ozone depleting substances.

This product does not contain any class 2 ozone depleting substances.

This product does not contain substances that are listed as hazardous air pollutants.

EPCRA (Emergency Planning and Right to Know Act, USA, 40 CFR 372.45)

This product does not contain substances which are subject to the reporting requirements of section 313 Title III of the SARA of 1986 and 40 CFR part 372.

TSCA (Toxic Substances Control Act of 1976, USA)

All substances are TSCA listed.

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California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity.

This product does not contain any of the listed substances.

Europe

RoHS (Restriction of Hazardous Substances Directive)

This product does not contain any lead, cadmium, mercury, hexavalent chromium, PBB's, PBDE's, DEHP, BBP, DBP, or DIBP and complies with European RoHS regulations.

WEEE (Waste Electrical and Electronic Equipment Directive)

This product is not a piece of electrical or electronics equipment and is therefore not governed by this regulation.

Section 16: Other Information

SDS Prepared by	MG Chemicals' Regulatory Department
Date of Revision	20 March 2024
Supersedes	23 March 2021

Reason for Changes: Added new part numbers.

Reference

1) ACGIH *2024 TLVs and BEIs: Based on the documentation of the threshold limit values for chemical substances and physical agents & biological exposure indices*, American Conference of Governmental of Industrial Hygienist Cincinnati, OH (2024).

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Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
IARC	International Agency for Research on Cancer
NOELR	No observable effect loading ratio
NTP	National Toxicology Program
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
OEL	Occupational Exposure Limit
PEL	Permissible Exposure Limit
Qty/Pkg	Quantity/Package
SDS	Safety Data Sheet
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Compound

Technical Queries Contact us regarding any questions, improvement suggestions, or problems with this product. Application notes, instructions, and FAQs are located at www.mgchemicals.com.

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