SUPER DUSTER 152 **402B**

Safety Data Sheet

Section 1: Product and Company Identification

Product Identifier and Other Means of Identification

Product Name: Super Duster 152 **MSDS Code:** 402B-aerosol

Related Part #: 402B-285G, 402B-400G

Recommended Use and Restriction on Use

Use: Aerosol duster

Uses Advised Against: Not available

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: support@mgchemicals.com
WEB www.mgchemicals.com

MG Chemicals (Head Office)
9347-193 Street
Surrey, British Columbia V4N 4E7
CANADA

☎ 1-905-331-1396
FAX 1-905-331-2682
E-MAIL: info@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 CHEMTREC ☎: ***1-800-424-9300***

For emergencies involving dangerous goods; Collect 24/7
CANADA: Call CANUTEC ☎: ***1-613-996-6666*** or ****666*** on cellular phones

Section 2: Hazards Identification

Classification of Hazardous Chemical

GHS Categories

Criteria		Category	Signal Word	Pictograms
Gas under pressure	Liquefied gas	3	Warning	

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.
Note 2: Non-flammable Aerosol. Not defined as flammable aerosol because heat of combustion is <20 kJ/g, ignition distance <15 cm, and it passes enclosed space ignition test according to 16 CFR 1500.3(c)(6) for the U.S. Federal Hazard Substance Act of the Consumer Product Safety Commission regulations. Not defined as a flammable aerosol under the Canadian Controlled Product Regulation SOR/88-66, 40 Division 5 criteria.

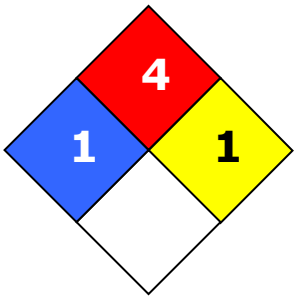
Other Classifications

HMIS® RATING

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

a) Liquid classification; for aerosols, NFPA 30B flammability rating is 1.

NFPA® 704 CODES a)



Approximate HMIS and NFPA Risk Ratings Legend:
0 (Low or none); 1 (Slight); 2 (Moderate); 3 (Serious); 4 (Severe)

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Label Elements

Signal Word	**WARNING**
Pictograms	**Hazard Statements**
	H280: Contains gas under pressure; may explode if heated
Prevention	**Precautionary Statements**
P251	Do not pierce or burn, even after use.
Storage	**Precautionary Statements**
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].

Hazards Not Otherwise Classified

HCS2012 Criteria	Hazard Statements/Precautionary Statement	Signal Word
Simple Asphyxiant	May displace oxygen and cause rapid suffocation.	Warning

Skin contact with liquid or aerosol jet may lead to frostbite. Warning

RECOMMENDATIONS: HOLD CAN UPRIGHT to avoid ejection of liquid stream during use. Avoid use in presence of ignition source or sparks. Do not use in confined and poorly ventilated area.

Liquid form is flammable. (Liquid form can be ejected if the aerosol can is not held upright during use.) Warning

May form explosive gas mixture with air. (Avoid use in confined and poorly ventilated places when in presence of ignition sources.) Warning

Intentional misuse and inhalation abuse may cause cardiac or central nervous systems effects. Warning

Section 3: Hazardous Ingredients

CAS #	Chemical Name	Wt%
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, P337+P313, P336+P315
Immediate Symptoms	*frostbite, cold burns*
Response	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention if irritation persists.
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, P352, P332+P313, P336+P315
Immediate Symptoms	*frostbite, cold burns*
Response	Wash with plenty of water. Get medical advice/attention if skin irritation occurs.
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	*Extreme exposure signs include dizziness, drowsiness, heart thumping, lightheadedness*
Response	Remove person to fresh air (out of the contaminated zone) and keep comfortable for breathing.
If feeling unwell	Call a POISON CENTRE/doctor
IF SWALLOWED	P301, P330, P310 (*Not a likely route of exposure under normal use*)
Immediate Symptoms	*frostbite (mouth), irritation*
Response	Rinse mouth with lukewarm water. Do NOT induce vomiting. Get medical advice/attention if feeling unwell.

Section 5: Fire Fighting Measures

Auto-ignition Temperature	>454 °C [849 °F]	**Flash Point**	-50 °C [-58 °F]	**LFL [LEL]**[a)]	3.5%
				UFL [UEL]	16.9%

In case of fire	P370 + P378
Response	Use dry chemical, carbon dioxide, chemical foam, or water spray to extinguish. Use water spray to cool containers.
Combustion Products	Produces CO, CO_2, halogenated compounds, and hydrogen fluorides
Fire-Fighter	Wear self-contained breathing apparatus for fire fighting
General Information	Vapors may accumulate in low-lying areas. Aerosol container may erupt with force at temperatures above 50 °C [122 °F]. Produces irritating and toxic fumes in fires or in contact with hot surfaces.

a) LF[E]L = Lower Flammability [or Explosion] Limit (in volume %);
UF[E]L = Upper Flammability [or Explosion] Limit (in volume %)

Section 6: Accidental Release Measures

Personal Protection	See Section 8. Avoid breathing the mist/vapors. For very large spills, wear self-contained breathing apparatus before approaching the spill. Wear cold-insulating clothing and gloves.
Containment	For aerosol can size spill, leave the immediate spill area to avoid contact with the liquid. No containment required under normal circumstances. If it can safely be done, extinguish open flames or remove high temperature sources to avoid producing toxic decomposition products.
Cleaning	Ensure adequate ventilation, especially in low or enclosed areas. The product will turn gaseous and be dispersed.
Disposal	Not applicable

Section 7: Handling and Storage

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.Do not get in eye, on skin, or on clothing.

Do not breathe mist/vapors/spray. In cases of inadequate ventilation wear respiratory protection.

Do not pierce or burn, even after use.

Handling

Keep upright when in 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 gloves/eye protection.

RECOMMENDATION: Wear cold-insulating gloves if exposure to liquid or aerosol jet is likely.

Storage

Protect from sunlight. Do not expose to temperatures exceeding 50 °C [122 °F].

RECOMMENDATION: Keep in well ventilated room.

Section 8: Exposure Controls/Personal Protection

Routes of Entry

Inhalation, skin, eyes

Substances with Occupational Exposure Limit Values

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

Note: Ingredients are listed in descending weight contribution order (from greatest to least). The ACGIH[2], OSHA (Table Z-1), and Canadian provinces exposure limits were consulted. Limits from by RTECS database[1] of the Canadian Centre for Occupational Health and Safety (CCOHS) a data from suppliers' SDS 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 4 or 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 of protective gloves in butyl rubber, latex, neoprene, or other chemically resistant gloves.

Respiratory Protection

In high exposure scenarios, use a full-face respirator with multipurpose combination of (US) or type AXBEK (EN 13387) to supplement engineering control. For extreme exposures, use full-face, self-contained breathing apparatus or supplied by air.

RECOMMENDATION: Consult your local safety supply store to ensure your respirator has filter cartridges appropriate for the ingredients listed in section 3 of this MSDS, and that the respirator is fitted to the employee by a professional.

General Hygiene Considerations

Wash hands thoroughly with water and soap after handling.

Section 9: Physical and Chemical Properties

Physical State	Liquefied gas	**Appearance**	Colorless
Odor	Slight, ether-like	**Odor Threshold**	Not available
pH	Not available	**Specific Gravity**	0.91
Solubility in Water @ 25 °C	0.27 g / 100 mL	**Melting/Freezing Point**	-117 °C [-179 °F]
Boiling Point	-25°C [-13 °F]	**Evaporation Rate**	Not available
Flash Point	-50 °C [-58 °F]	**Vapor Pressure @ 25 °C**	4,470 mmHg [596 kPa]
Lower Flammability Limit	3.9%	**Upper Flammability Limit**	16.9%
Auto-ignition Temperature	454 °C [849 °F]	**Decomposition Temperature**	Not available
Viscosity	Not applicable	**Vapor Density**	2.3 (Air =1)
Partition Coefficient	0.75 [a)]		

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

Section 10: Stability and Reactivity

Stabilities	Chemically stable at normal temperatures and pressures
Conditions to Avoid	Ignition sources, excessive heat, 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

Routes of Exposure

Eyes, inhalation, and skin

Symptoms Summary

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 heart beat.

Ingestion *Highly unlikely under normal use and conditions.* See inhalation and skin summaries.

Chronic Not applicable

Acute Toxicity (Lethal Exposure Concentrations)

Chemical Name	LD50 oral	LD50 dermal	LC50 inhalation	TCLo inhalation
1,1-difluoroethane	Not available	Not available	1,500 g/m^3 4 h Rat	Not available

Note: Representative toxicity data from by RTECS database of the Canadian Centre for Occupational Health and Safety (CCOHS)[1] data from supplier MSDS were also consulted.

Skin corrosion/irritation None known or expected.

Serious eye damage/irritation None known or expected.

Sensitization (allergic reactions) None known or expected.

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) No data available

Reproductive Toxicity (risk to sex functions) No data available

Teratogenicity (risk of fetus malformation) No data available

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STOT-single exposure	Data does not give rise to classification. 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	No data available
Aspiration hazard	Not applicable

Section 12: Ecological Information

The IMDG Code criteria and the raw-material MSDS along with supporting data for the classification of registered substances from the European Chemical Agency database (http://echa.europa.eu) were used.

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

Global Warming Potential

The 100 years global warming potential is 120.

Other Effects

VOC exempt (0% by EPA and WHIMS guidelines)

**VOC = Regulated Volatile Organic Content*

Section 13: Disposal Information

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

Section 14: Transport Information

Ground

Refer to USA 49 CFR Regulations (Parts 100 to 185).

Limited Quantity 	USA only (*other jurisdictions may differ*) **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. A copy of this special permit is required. http://www.phmsa.dot.gov/staticfiles/PHMSA/SPA_App/OfferDocuments/SP11516_2009030606.pdf

Air

Refer to ICAO-IATA Dangerous Goods Regulations.

	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. A copy of this special permit is required. http://www.phmsa.dot.gov/staticfiles/PHMSA/SPA_App/OfferDocuments/SP11516_2009030606.pdf

Sea

Refer to IMDG Dangerous Goods Regulations.

	USA only (*other jurisdictions may differ*) **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. A copy of this special permit is required. http://www.phmsa.dot.gov/staticfiles/PHMSA/SPA_App/OfferDocuments/SP11516_2009030606.pdf

Note: **Shipper must be appropriately trained and certified 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.

Industry and Science Canada

MG Labels products intended for the workplace to conform to WHMIS labeling regulations. Product identification, net quantity declaration, minimum printing type size heights, and packaging of this product are in compliance.

Health Canada

Products produced by MG Chemicals intended for retail display conform to the Canadian Consumer Labeling Regulations.

USA

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 contains 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.

California Proposition 65 (Chemicals known to cause cancer or reproductive toxicity, Sept 2, 2011 revision, USA).

This product does not contain any of the listed substances.

Europe

This product is not classified under the DPD regulations.

Section 16: Other Information

MSDS Prepared by Michel Hachey

Date of Revision 02 April 2014

Supersedes 01 January 2014

Reason for Changes: Amended Section 14.

Reference

1) All toxicological data were checked against the RTECS (Registry of Toxic Effects of Chemical Substances®)

2) ACGIH *2013 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 (2013).

Abbreviations

ACGIH	American Conference of Governmental Industrial Hygienists (USA)
GHS	Globally Harmonized System of Classification of Labeling of Chemicals
LC50	Lethal Concentration 50%
LCLo	Lowest published lethal concentration
LD50	Lethal Dose 50%
PEL	Permissible Exposure Limit
STEL	Short-Term Exposure Limit
TCLo	Lowest published toxic concentration
TWA	Time Weighted Average
VOC	Volatile Organic Content

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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