PN 049106

Dust-Off® The Original Compressed-Gas Duster

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product Identifier

Trade Name/Designation: Dust-Off®. The Original Compressed-Gas Duster

Synonyms: 18007/DFG3552X, 18010/DFG1052X, 88002/DPSX, 88004/DPSRX, 88007/DPSJBX,

88010/DPSXLX, 88015/FGSX, 88017/FGSRX, 88120/DPSJMBX, 88128/DSXLPX4P,

88143/DSXLPX6P

EC Number: 200-866-1

REACH Registration number: 05-2118801621-54-0000

1.2. Relevant identified uses of the substance or mixture and uses advised against

Main use category: Professional use/Dust Control

1.3. Details of the Supplier of Safety Data Sheet

Company: Katun Corporation

10951 Bush Lake Road, Minneapolis, Minnesota 55438

Tel: (952) 941-9505 (Chemtrec) (800) 424-9300

1.4. Emergency Telephone Numbers

(Chemtrec) (800) 424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification: Category 2 Aerosol – H223, H229

2.2. Label Elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

Hazard Pictogram:

Signal Word: Warning

Hazard Statements: H223 – Flammable Aerosol

H229 - Pressurised Container: may burst if heated

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 an open flame or other ignition source

P251 - Do not pierce or burn, even after use

P410 + P412 - Protect from sunlight. Do not expose to temperatures exceeding 50°C

2.3. Other Hazards

Other Hazards: Deliberately concentrating and/or inhaling contents may be fatal.

Liquid contents may cause severe burns (frostbite) on contact with skin. This product does not contain any substances classified as PBT or vPvB.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical Name	CAS-No.	Concentration%	EC-No.	CLP Classification EC No.1272/2008
1,1 - Difluoroethane (152a)	75-37-6	>99	200-866-1	Flam Gas – Category 2 H223

See Section 16 for the full text of the H-phrases declared above.

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit

Occupational exposure limits, if available, are listed in Section 8.

3.2. Mixtures

There are no additional ingredients present, in applicable concentrations according to Regulation (EC) No.1272/2008, presenting a health or environmental hazard.

SECTION 4: First aid measures

General Notes: 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 Doctor/emergency services.

Inhalation: Provide Fresh air.

Keep warm and in a quiet place.

If breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen

by trained personnel.

Skin Contact: Immediately remove contaminated clothing; wash contaminated skin with plenty of water.

Get medical attention if symptoms occur. Wash clothing before reuse

Eye Contact: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids.

Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get

medical advice/ attention.

Ingestion: Ingestion of liquid can cause burns similar to frostbite. Wash out mouth with plenty of water.

Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest.

Do not induce vomiting unless directed to do so by medical personnel.

Protection for First Aiders: No action shall be taken involving any personal risk or without suitable training.

It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

Treat symptomatically. Contact poison treatment specialist immediately if large quantities

have been ingested or inhaled. **DO NOT** administer adrenaline or similar drugs.

4.2. Most Important symptoms and effects, both acute and delayed

Inhalation: Inhalation of high vapour concentrations can cause CNS-depression and narcosis. Possible

Effects include headache, dizziness, cramp unconsciousness and Death. Inhalation of vapours in high concentration may cause irritation of respiratory system. May cause nose, throat and lung irritation. The following symptoms may occur: Cough, Breathing difficulties,

shortness of breath.

Skin Contact: Contact with liquid or refrigerated gas can cause cold burns and frostbite.

Eye Contact: May cause eye irritation.

Ingestion: Ingestion unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and

diarrhoea

4.3. Indication of any immediate medical attention and special treatment needed

Not Applicable

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SECTION 5: Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media: Water Spray, Water Fog, Dry Chemical, Carbon Dioxide, Alcohol – resistant foam

Extinguishing media which shall not be used: Strong water jet for safety reasons.

5.2. Special hazards arising from the substance or mixture

Fire Hazard: Flammable aerosol.

Specific hazards: Aerosol Cans may rupture and become projectiles (>49 ℃)

In use, may form flammable/explosive vapour-air mixture. Vapours heavier than air and may spread along floors.

Vapours can travel considerable distances to a source of ignition where they can ignite,

flash back or explode.

The pressure in sealed containers can increase under the influence of heat.

Hazardous decomposition products formed under fire conditions.

Carbon monoxide, Carbon dioxide, Halogenated compounds, Hydrogen halides,

Hydrogen fluoride

By products from reaction with water may be toxic: HF, Carbonyl fluoride.

5.3. Advice for firefighters

Advice for firefighters: 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 surrounding environment. Cool containers/tanks with water spray.

Evacuate area. Do not allow run-off from fire-fighting to enter drains or water courses.

Dispose according to local regulations/legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training.

Evacuate surrounding areas. Provide adequate ventilation. Keep unnecessary and unprotected personnel from entering. In the case of aerosols being ruptured, care should be taken due to the rapid escape of the pressurised contents and propellant. If a large number of containers are ruptured, treat as a bulk material spillage according to the instructions in the clean-up section. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Use only non-sparking tools. Avoid breathing vapour or mist. Wear appropriate respirator when ventilation is inadequate. Put on

appropriate personal protective equipment (see Section 8).

For emergency responders: Only qualified personnel equipped with suitable protective equipment may intervene (see

Section 8).

6.2. Environmental precautions

Environmental precautions: Do not allow to enter into ground water, surface water or drains

6.3. Methods and material for containment and cleaning up

Methods for cleaning up:

Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large Spill: Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. Note: see section 1 for emergency contact information and section 13 for waste disposal.

6.4. Reference to other sections

See also section 8. See also section 13.

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SECTION 7: Handling and storage

Precautions for safe handling <u>7.1.</u>

Handling: Put on appropriate personal protective equipment (see Section 8).

Pressurised container, protect from sunlight and do not expose to temperature exceeding 50 ℃. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material. Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing gas. Avoid breathing vapour or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting

and material handling) equipment. Use non-sparking tools.

Eating, drinking and smoking should be prohibited in areas where this material is handled. Advice on general occupational hygiene:

stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating

areas. Wash contaminated clothing before re-use.

Precautions for safe handling 7.2

Storage: Flammable aerosol - H221

Keep container tightly closed in a cool, well ventilated place.

Keep away from direct sunlight. Keep at a temperature below 49 °C. Store in upright position only.

Packaging: Keep/Store only in original container.

7.3. Specific end user(s)

No data available.

SECTION 8: Exposure controls/personal protection

Control parameters

Occupational Exposure limit values

1.1-Difluoroethane R152a (CAS 75-37-6)

PEL (OSHA) : None established AEL * (DuPont) : 1000 ppm, 8 Hr. TWA TLV (ACGIH) WEEL (AIHA) : 1000 ppm, 8 Hr. TWA None established

* AEL is DuPont's Acceptable Exposure Limit

The Data shown above is credited to the (EFCTC) European Fluorocarbons Technical Committee www.fluorocarbons.org/chemical-families/hfcs/hfc-occupational-health

Industry - Inhalation, Long term : 2713 mg/m³ **PNEC** Fresh water 0.048 mg/l

Consumer – Inhalation, Long term : 675 mg/m³ 0.048 mg/l Marine water: Soil: 0.141 mg/kg

Exposure controls

8.2.1. Engineering control measures: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or

mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Appropriate techniques should be used to remove potentially contaminated clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

8.2.2. Personal protective equipment: The type of protective equipment must be selected according to the concentration and

amount of the dangerous substance at the specific workplace. Directive 98/686/EEC

Tight fitting safety goggles / safety glasses (EN 166) should be worn when a risk assessment 8.2.2.1. Eye and Face protection:

indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts.

8.2.2.2. Skin protection:

Hand protection Cold/Chemical-resistant, impervious gloves (EN511) should be worn at all times when

handling chemical products if a risk assessment indicates this is necessary.

Other skin protection Personal protective equipment for the body should be selected based on the task being

performed and the risks involved and should be approved by a specialist before handling this

product.

8.2.2.3. Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.

Respirator with a full face mask (EN136) Respirator with a half face mask (EN140) Recommended Filter type AX (EN141)

8.2.2.4. Thermal hazard protection: Use dedicated equipment.

8.2.3 Environmental exposure controls: Do not allow to enter into surface water or drains.

Comply with applicable Community environmental protection legislation.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance/Colour : aerosol, liquefied gas/ colourless

Odour : slight, ether like

Odour threshold : Odour threshold is subjective and inadequate to warn for over exposure

pH : Neutral

Melting point/range : $-117 \,^{\circ}\text{C}$ (@ 1013 hPa) Boiling point/range : $-24.7 \,^{\circ}\text{C}$ (@ 1013 hPa)

Flash point : < -50 ℃

Evaporation rate : no data available
Flammability (solid, gas) : Flammable aerosol

Explosion limits (LEL, UEL) : LEL 3.7 vol % - UEL 20.2 vol %

Vapour pressure:5960 hPa (@ 25 $^{\circ}$ C)Vapour density:No data availableDensity:@ 25 $^{\circ}$ C 0.9 g/m³ liquid

Relative density : 2.4

Water solubility : 0.2 g/l (@ 25 ℃ - @ 1013 hPa)

Solubility in other solvents : no data available
Partition coefficient n-octanol/water : no data available

Auto ignition temperature : 454 ℃

Decomposition temperature : no data available
Viscosity : no data available

Explosive properties : Not applicable. The study does need to be conducted because there are no

Chemical groups associated with explosive properties present in the molecule. Not applicable. The classification procedure needs not be applied because there

are no chemical groups present in the molecule which are associated with

oxidising properties.

9.2. Other information

Oxidising properties

Volatile organic compounds (VOC) content in percent by weight : >99%

Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : Flammable aerosol. See also section 10.5

10.2. Chemical stability

Stability : The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous conditions : In use, may form flammable/explosive vapour-air mixture

See also section 10.4.

10.4. Conditions to avoid

Conditions to avoid : Heat, flames and sparks. See also section 7 – Handling and storage

10.5. Incompatible materials

Incompatible materials : Alkali metals, alkaline earth metals, powdered metals, powdered metal salts.

See also section 7 – Handling and storage.

10.6. Hazardous decomposition products

Hazardous decomposition products : Hazardous decomposition products formed under fire conditions

See also section 5.2.

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SECTION 11: Toxicological information

11.1. Information on Toxicological effects

Acute inhalation toxicity 1.1-Difluorethane (R152a)

Component Analysis – LD50: 1,1-Difluoroethane - > 64000 ppm rat Component analysis - Oral LD50: 1,1-Difluoroethane - 1500 mg/kg rat

Effects of acute exposure - skin: Exposure to rapidly expanding gas or vaporising liquid may cause frostbite ('cold' burn)

Effects of acute exposure - eye: Exposure to rapidly expanding gas or vaporising liquid may cause frostbite ('cold' burn)

Effects of acute exposure - inhalation: Severe shortness of breath, narcosis, irregular cardiac activity, coughing, respiratory tract

Carcinogenicity: Not classifiable as a human carcinogen. Animal testing did not show carcinogenic effects.

Reproductive Toxicity: No toxicity to reproduction. Animal testing showed no reproductive toxicity.

Other Information: Symptoms related to the physical, chemical and toxicological characteristics, see section 4.2

SECTION 12: Ecological information

Eco-toxicity

Not regarded as dangerous to the environment.

12.1. Toxicity

Acute toxicity - fish

LC₅₀, 96 hours: 295.783 mg/l, Fish

Acute toxicity - aquatic invertebrates

LC₅₀, 48 hours: 146.695 mg/l, Daphnia magna

Acute toxicity - aquatic plants

No information required

Acute toxicity - microorganisms

No information required

12.2. Persistence and degradability

Persistence and degradability

No data available

12.3. Bio accumulative potential

Bio accumulative potential

No data available

12.4. Mobility in soil

Mobility in soil

Mobile

12.5. Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Ozone Depletion Potential: 0

Global Warming Potential (CH₃CHF₂): 124

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Waste from residues / unused products

Handle with care. See also section 7: Handling and storage.

Dispose according to local legislation. Do not enter into surface water or drains.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal. Empty containers must not be punctured or incinerated because of the risk of an explosion.

List of suggested waste codes/waste designations in accordance with the EWC

Classified as hazardous waste according to European Union Regulations.

The following waste codes are only suggestions: 150110 – packaging containing residues of or contaminated by dangerous substances. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

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SECTION 14: Transport information

14.1. UN number

UN-No. : 1950

14.2. UN proper shipping name

Proper shipping name : AEROSOLS

Proper shipping name IATA/IMDG : AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

14.3.1. Overland transport (ADR)

Class : 2 - Gases

Classification code : 5F
Labelling: Limited Quantities (LQ) :

14.3.2. Inland waterway transport (ADN)

Class (UN) :

Labelling: Limited Quantities (LQ)

14.3.3. Transport by sea (IMDG)

Class or Division : 2.1 – Flammable Gas

Labelling: Limited Quantities (LQ) :

14.3.4. Transport by air (IATA)

Class or Division : 2.1 – Flammable Gas

Labelling: Limited Quantities - IATA (LQ)

Flammable Gas : Y

This Way Up

AEROSOLS

14.4. Packing group

Packing group : Not applicable

14.5. Environmental Hazards

AEROSOLS

Environmentally hazardous substance/marine : No

pollutant.

14.6. Special precautions for user

EMS : F-D, S-U

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code

Not applicable

SECTION 15: Regulatory information

15.1.1. EU Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No. 1907/2006

3. Liquid substances or mixtures which are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No. 1272/2008

40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids Category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No. 1272/2008 or not.

This product contains an ingredient according to the Candidate list of Annex XIV REACH Regulation

No. 1907/2006/EC : None

Authorisations : Not applicable

: "Dymel" 152a

: "Dymel" 152a - 1,1-Difluoroethene

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SECTION 15: Regulatory information - continued

15.1.2. National regulations - (non-exhaustive list)

DE: WGK :

DE: German storage class (LGK) : LGK 28 – Aerosols

DE: Technische Regein für Gefahrstoffe (TRGS) : Applicable FR: Installations classées : 141x 143x

NL: ABM : 11 – Weinig schadelijk voor in het water levende organismen (B)

NL: NeR (Nederlandse emissive Richtlijn : Organic substances in vapour or gaseous form

15.2. Chemical safety assessment

Chemical Safety Assessment : No chemical safety assessment has been carried out.

SECTION 16: Other information

Full text of H and EUH phrases

Aerosol 2 : Aerosol, Category 2
Flam Gas 2 : Flammable gases, hazard category 2
Liquefied gas : Gases under pressure: Liquefied gas

H223 : Flammable aerosol

H229 : Pressurised container. May burst if heated

"Dymel" is a registered trademark of DuPont

Key literature and sources for data. : ECHA – Guidance on the compilation of safety data sheets

Aerosol Dispensers Directive 2013/10/EU BAMA – British Aerosol Manufacturers Association (EFCTC) European Fluorocarbons Technical Committee

Abbreviations and acronyms : ABM = Algemene beoordelingsmethodiek

AND = Accord Européen relative au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin ADR = Accord Européen relative au Transport International des

Marchandises Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation

according to 1272/2008/EC

IATA = International Air Transport Association

IMDG = International Maritime Dangerous Goods Code

REACH = Registration, Evaluation, Authorisation and Restriction

of Chemicals

DNEL = Derived No Effect Level
EC50 = Median Effective Concentration
LC50 = Median Lethal Concentration
PNEC = Predicted No Effect Concentration

STEL = Short term exposure level

TLV = Threshold limits

TWA = Time weighted average

PBT = Persistent, bio-accumulating and toxic vPvB = Very persistent and very bio-accumulating

WGK = Wassergefahrdungsklasse (Water Hazard Class under

German Federal Water Management Act)

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Prepared by : Falcon Safety Products (UK) Limited

The contents and format of this SDS are in accordance of Aerosol Directive 2013/10/EU, Regulation 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

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