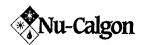
SAFETY DATA SHEET



1. Product and Company Identification

Product identifier

Other means of identification

Recommended use

Recommended restrictions

Manufacturer information

Electrical Contact Cleaner (4082-03) Not available

Cleaner

None known.

Nu-Calgon

2611 Schuetz Road St. Louis, MO 63043 US

Phone: 314-469-7000 / 800-554-5499

Emergency Phone: 1-800-424-9300 (CHEMTREC)

See above.

ELectrical Contact CLeaner High Solvency Cheaning power

NO. 4082-03

BY: Nu-cargon

Supplier

2. Hazards Identification

Physical hazards

Health hazards

Flammable aerosols

Gases under pressure

Skin corrosion/irritation

Germ cell mutagenicity

Specific target organ toxicity, single exposure

Aspiration hazard

WHMIS 2015 defined hazards

Environmental hazards

Label elements

Not classified.

Not classified



Signal word

Danger

Hazard statement

Extremely flammable aerosol. Contains gas under pressure; may explode if heated. May be fatal if swallowed and enters airways. Causes skin irritation. May cause respiratory irritation. May cause genetic defects.

Category 1

Category 2

Category 1B

Category 1

Category 3 respiratory tract irritation

Liquefied gas

Precautionary statement

Prevention

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid breathing gas.

Response

IF SWALLOWED: Immediately call a POISON CENTER/doctor. Do NOT induce vomiting. IF ON SKIN: Wash with plenty of water. Specific treatment (see information on this label). If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

Storage

Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Store in a well-ventilated place. Store locked up. Keep container tightly closed.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS 2015: Health Hazard(s)

not otherwise classified

(HHNOC)

None known

None known

WHMIS 2015: Physical Hazard(s) not otherwise

classified (PHNOC) Hazard(s) not otherwise

None known.

classified (HNOC)

Supplemental information

None.

#27926

Page: 1 of 10

Issue date 31-March-2017 4082-03 (Canada/US GHS)

Misetune			
Mixture			
Chemical name	Common name and synonyms	CAS number	<u></u>
1,1-Difluoroethane		75-37-6	39-64
Naphtha (petroleum), hydrotre	ated	64742-49-0	31-50
Heptane		142-82-5	0.0-0.8
All concentrations are in percent b	by weight unless ingredient is a gas. Gas conce	ntrations are in percent by vo	lume.
Composition comments	US GHS: The specific chemical identity and/has been withheld as a trade secret in accord	or exact percentage (concent	ration) of composition
	4. First Aid Measures		
Inhalation	IF INHALED: Remove person to fresh air and CENTER or doctor/physician if you feel unwe	i keep comfortable for breath	ng. Call a POISON
Skin contact	IF ON SKIN: Wash with plenty of water. Spec contaminated clothing and wash it before reu advice/attention.	cific treatment (see informatio se. If skin irritation occurs: G	n on this label). Take et medical
Eye contact	Flush with cool water. Remove contact lense medical attention if irritation persists.	es, if applicable, and continue	flushing. Obtain
Ingestion	IF SWALLOWED: Immediately call a POISON vomiting.	N CENTER or doctor/physicia	n. Do NOT induce
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. Dizziness. May cause respiratory irritation. Skin irritation. May cause redness and pain.		
Indication of immediate medical attention and special reatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.		
General information	IF exposed or concerned: Get medical advice (show the label where possible). Ensure that involved, and take precautions to protect then attendance. Avoid contact with eyes and skin.	medical personnel are aware nselves. Show this safety dat	of the material(s) a sheet to the doctor i
	5. Fire Fighting Measure	es	
Suitable extinguishing media	Dry chemical powder. Carbon dioxide.		
Jnsuitable extinguishing nedia	Do not use a solid water stream as it may sca	tter and spread fire.	
Specific hazards arising from he chemical	Contents under pressure. Pressurized contain During fire, gases hazardous to health may be	ner may explode when expose formed.	ed to heat or flame.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equiface shield, gloves, rubber boots, and in enclo	ipment including flame retard sed spaces, SCBA.	ant coat, helmet with
Fire-fighting equipment/instructions	In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and le fire burn out.		
pecific methods	Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Cool containers exposed to flames with water until well after the fire is out. In the event of fire and/or explosion do not breathe fumes.		
Seneral fire hazards	Extremely flammable aerosol. Contents under exposed to heat or flame.		
lazardous combustion roducts	May include and are not limited to: Oxides of o	carbon.	
	6. Accidental Release Meas	ures	
ersonal precautions, rotective equipment and mergency procedures	Keep unnecessary personnel away. Keep peo low areas. Many gases are heavier than air an confined areas (sewers, basements, tanks). We during clean-up. Avoid breathing gas. Emerge equipment. Do not touch damaged containers protective clothing. Ventilate closed spaces be advised if significant spillages cannot be contained.	id will spread along ground and lear appropriate protective ec ncy personnel need self-cont or spilled material unless we fore entering them. Local aut	nd collect in low or juipment and clothing ained breathing aring appropriate horities should be

Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Prevent entry into waterways, sewer, basements or confined areas. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.

7. Handling and Storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not smoke while using or until sprayed surface is thoroughly dry. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid breathing gas. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat or drink. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.

Conditions for safe storage, including any incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not handle or store near an open flame, heat or other sources of ignition. Do not puncture, incinerate or crush. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Cylinders should be stored upright, with valve protection cap in place, and firmly secured to prevent falling or being knocked over. Stored containers should be periodically checked for general condition and leakage. Keep out of reach of children.

8. Exposure Controls/Personal Protection

Occupational exposure limits

Canada. Alberta OEL:	s (Occupational Healt	th & Safety Code, Schedule	1, Table 2)
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Components	Туре	Value	
Heptane (CAS 142-82-5)	STEL	2050 mg/m3 500 ppm	
	TWA	1640 mg/m3 400 ppm	
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3	
·		400 ppm	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and

Components	Туре	Value	
Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	

Canada, Manitoha OFI s (Reg. 217/2006, The Workplace Sefety And Health Act)

Components	Туре	Value	
Heptane (CAS 142-82-5)	STEL	500 ppm	
	TWA	400 ppm	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	I ype	Value
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm

Components	Туре	Value	
Heptane (CAS 142-82-5)	STEL	2050 mg/m3	
		500 ppm	
	TWA	1640 mg/m3	

Components	Ministry of Labor - Regulation Respecting the 0 Type	Value
		400 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	TWA	1590 mg/m3
		400 ppm
US. OSHA Table Z-1 Limit Components	ts for Air Contaminants (29 CFR 1910.1000) Type	Value
Heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)	PEL	400 mg/m3
		100 ppm
US. ACGIH Threshold Lim	iit Values	
Components	Туре	Value
Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
US. NIOSH: Pocket Guide	to Chemical Hazards	•
Components	Type	Value
Heptane (CAS 142-82-5)	Ceiling	1800 mg/m3
	-	440 ppm
	TWA	350 mg/m3
		85 ppm
Naphtha (petroleum),	TWA	400 mg/m3
hydrotreated light (CAS		
64742-49-0) US. AIHA Workplace Envir	onmental Exposure Level (WEFL) Guides	100 ppm
US. AIHA Workplace Envir Components	onmental Exposure Level (WEEL) Guides Type TWA	Value
US. AIHA Workplace Envir		Value 2700 mg/m3
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6)	Type TWA	Value 2700 mg/m3 1000 ppm
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6)	Type TWA No biological exposure limits noted for the ingr	Value 2700 mg/m3 1000 ppm redient(s).
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6)	Type TWA No biological exposure limits noted for the ingression of the ingression	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rates in the levels below recommended exposure limits.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols	Type TWA No biological exposure limits noted for the ingression of the ingression	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rates in the levels below recommended exposure limits.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols	Type TWA No biological exposure limits noted for the ingression of the ingression	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering atrols	Type TWA No biological exposure limits noted for the ingression of the ingression	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols vidual protection measures Eye/face protection	Type TWA No biological exposure limits noted for the ingression of the matched to conditions. If applicable or other engineering controls to maintain airbor exposure limits have not been established, maintain airbor of the ingression of the ing	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles).
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols vidual protection measures Eye/face protection Skin protection	Type TWA No biological exposure limits noted for the ingression of the matched to conditions. If applicable or other engineering controls to maintain airbor exposure limits have not been established, may such as personal protective equipment. Wear safety glasses with side shields (or gogget Impervious gloves. Confirm with reputable support the ingression of the ingres	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles).
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols vidual protection measures Eye/face protection Skin protection Hand protection Other	Type TWA No biological exposure limits noted for the ingressional following requirements found in Older exposure limits noted for the ingressional protective equipment was afety glasses with side shields (or goggestimpervious gloves. Confirm with reputable supposed by employer code. Where exposure guideline levels may be excerted by and used underprofessional following requirements found in O	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates, use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator, der the direction of a trained health and safety SHA's respirator standard (29 CFR 1910 134)
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering trols vidual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection	Type TWA No biological exposure limits noted for the ingression general ventilation (typically 10 air chanshould be matched to conditions. If applicable or other engineering controls to maintain airbo exposure limits have not been established, may such as personal protective equipment. Wear safety glasses with side shields (or goggen limpervious gloves. Confirm with reputable sup Wear appropriate chemical resistant clothing. If required by employer code. Where exposure guideline levels may be excert Respirator should be selected by and used united.	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates, use process enclosures, local exhaust ventilation rate levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator, der the direction of a trained health and safety SHA's respirator standard (29 CFR 1910 134)
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols vidual protection measures Eye/face protection Skin protection Hand protection	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respinse for the exposure limits have not been established, make the content of the exposure limits have not been established, make the content of the exposure limits have not been established, make the content of the exposure limits have not been established, make the exposure limits have not been established, make the exposure guished to exposure equipment. Wear safety glasses with side shields (or gogging limits as a standard for gogging limits and the exposure guideline levels may be excerted by exposure guideline levels may be excerted by and used unto professional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respinsor the exposure guideline levels may be excerted by an exposure guideline levels may be excerted by exposure guideline levels may	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates, use process enclosures, local exhaust ventilation rate below recommended exposure limits. In aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. In additional description of a trained health and safety SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing trinking, and/or smoking. Routinely wash work
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols ividual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection Thermal hazards eral hygiene	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respirations for eating and protective equipment for exposure guideline confirmed by and used unconfirmed by employer code. When using do not smoke. Always observe go after handling the material and before eating, delothing and protective equipment to remove confirmed by the confirmed by employer code.	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation rene levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. der the direction of a trained health and safety SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing lirinking, and/or smoking. Routinely wash work ontaminants. When using do not eat or drink.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols vidual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection Thermal hazards eral hygiene siderations	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respirator shouling and protective equipment for handling the material and before eating, oclothing and protective equipment where the professional following required by employer code. When using do not smoke. Always observe go after handling the material and before eating, oclothing and protective equipment to remove on the control of the protective equipment.	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation prine levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. der the direction of a trained health and safety is SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing lirinking, and/or smoking. Routinely wash work ontaminants. When using do not eat or drink.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols vidual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection Thermal hazards eral hygiene siderations	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respingering do not smoke. Always observe go after handling the material and before eating, delating and protective equipment occasional following required by employer code.	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates , use process enclosures, local exhaust ventilation prine levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. der the direction of a trained health and safety is SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing lirinking, and/or smoking. Routinely wash work ontaminants. When using do not eat or drink.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols vidual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection Thermal hazards eral hygiene siderations	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respirator shouling and protective equipment for handling the material and before eating, oclothing and protective equipment where the professional following required by employer code. When using do not smoke. Always observe go after handling the material and before eating, oclothing and protective equipment to remove on the control of the protective equipment.	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates, use process enclosures, local exhaust ventilation rate structure levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. der the direction of a trained health and safety is SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing trinking, and/or smoking. Routinely wash work ontaminants. When using do not eat or drink.
US. AIHA Workplace Envir Components 1,1-Difluoroethane (CAS 75-37-6) logical limit values propriate engineering strols ividual protection measures Eye/face protection Skin protection Hand protection Other Respiratory protection Thermal hazards eral hygiene siderations	Type TWA No biological exposure limits noted for the ingressional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respin cothing and protective equipment to applicable solved by and used uncomposite or content of the endit of the exposure limits have not been established, make the exposure glasses with side shields (or goog limpervious gloves. Confirm with reputable supplicable appropriate chemical resistant clothing. It required by employer code. Where exposure guideline levels may be excered by and used uncomprofessional following requirements found in OCAN/CSA-Z94.4 and ANSI's standard for respin Not applicable. When using do not smoke. Always observe goog after handling the material and before eating, do clothing and protective equipment to remove considered the exposure protective equipment to remove the exposure protective equipment expos	Value 2700 mg/m3 1000 ppm redient(s). ges per hour) should be used. Ventilation rates, use process enclosures, local exhaust ventilation rate structure levels below recommended exposure limits. aintain airborne levels to an acceptable level. gles). pplier first. Use of an impervious apron is recommended. As eded, use an approved NIOSH respirator. der the direction of a trained health and safety is SHA's respirator standard (29 CFR 1910.134), iratory protection (Z88.2). od personal hygiene measures, such as washing trinking, and/or smoking. Routinely wash work ontaminants. When using do not eat or drink.

Odor

Mild hydrocarbon

Odor threshold

Not available.

Not available.

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Pour point Specific gravity Not available.

Partition coefficient

Not available.

Not available.

(n-octanol/water)

Flash point

Not available.

Evaporation rate Flammability (solid, gas)

Not available. Not available.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

Explosive limit - lower (%)

Not available.

Explosive limit - upper (%)

Not available.

Vapor pressure

Not available.

Vapor density Relative density Not available.

Solubility(ies)

Not available.

Auto-ignition temperature

Not available. Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Other information

Density

Density VOC: 2.92920 lb/gal

6.65630 lb/gal

Explosive properties

Not explosive.

Oxidizing properties

Not oxidizing. % VOC: 44.00638%

VOC (Weight %)

VOC Actual (g/l): 351.00566

10. Stability and Reactivity

Reactivity

This product may react with strong oxidizing agents.

Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

Chemical stability

Conditions to avoid

Heat. Contact with incompatible materials.

Material is stable under normal conditions.

Incompatible materials

Strong oxidizing agents. Reducing agents. Acids.

Hazardous decomposition

May include and are not limited to: Oxides of carbon.

products

11. Toxicological Information

Routes of exposure

Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of exposure

Ingestion

Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious

chemical pneumonia. May cause stomach distress, nausea or vomiting

Inhalation

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact

Causes skin irritation.

Eye contact

Direct contact with eyes may cause temporary irritation.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. Dizziness. May cause respiratory

irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

1,1-Difluoroethane (CAS 75-37-6)

Acute toxicity

May be fatal if swallowed and enters airways. May cause respiratory irritation.

Components

Acute

Inhalation

LC50

Rat

Species

Test Results

> 437500 ppm, 4 Hours, ECHA

> 64000 ppm

Oral

LD50

Rat

> 1500 mg/kg

Heptane (CAS 142-82-5)

Acute

Inhalation

LC50

Rat Mouse 103 mg/L, 4 Hours

LD50 Oral

LD50

Rat

75 mg/L, 2 Hours

15000 mg/kg

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

Acute

Dermal

LD50

Rabbit

3160 mg/kg

Inhalation

LC50

Rat

61 mg/L, 4 Hours

20 ppm

20 mg/l/4h

Oral

LD50

Rat

> 25 ml/kg

5000 mg/kg

Skin corrosion/irritation

Exposure minutes

Not available.

Causes skin irritation.

Erythema value

Not available.

Oedema value

Not available.

Serious eye damage/eye irritation

Corneal opacity value

Iris lesion value

Not available.

Conjunctival reddening

Not available. Not available.

value

Not available.

Recover days

Not available.

Respiratory or skin sensitization

Respiratory sensitization

Conjunctival oedema value

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Direct contact with eyes may cause temporary irritation.

Mutagenicity

May cause genetic defects.

Carcinogenicity

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Teratogenicity

Not available.

Specific target organ toxicity -

May cause respiratory irritation.

single exposure

Specific target organ toxicity -

repeated exposure

Not classified.

Aspiration hazard

May be fatal if swallowed and enters airways.

12. Ecological Information

Ecotoxicity

Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

Ecotoxicological data

Components

Species

Test Results

Heptane (CAS 142-82-5)

Aquatic

Fish

LC50

Mozambique tilapia (Tilapia

mossambica)

375 mg/L, 96 hours

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

Aquatic

Crustacea

EC50

Water flea (Daphnia pulex)

2.7 - 5.1 mg/L, 48 hours

Fish

LC50

Rainbow trout, donaldson trout

8.8 mg/L, 96 hours

(Oncorhynchus mykiss)

8.8 mg/L, 96 hours

Persistence and degradability

Bioaccumulative potential

No data is available on the degradability of this product.

Mobility in soil

Mobility in general

No data available.

Not available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation

13. Disposal Considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Hazardous waste code

Dispose in accordance with all applicable regulations.

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal. Do not re-use empty containers.

14. Transport Information

Transport of Dangerous Goods (TDG) Proof of Classification

In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.

General

IMDG Regulated Marine Pollutant.

U.S. Department of Transportation (DOT)

Basic shipping requirements:

UN number

UN1950

Proper shipping name

Aerosols, flammable, (each not exceeding 1 L capacity)

Hazard class

Limited Quantity - US N82

Special provisions Packaging exceptions

Packaging non bulk

<1L - Limited Quantity

None

Packaging bulk

None

Transportation of Dangerous Goods (TDG - Canada) Basic shipping requirements:

UN number

UN1950

Proper shipping name

AEROSOLS, flammable

Hazard class

Limited Quantity - Canada

Special provisions Packaging exceptions 80, 107 <1L - Limited Quantity

IATA/ICAO (Air)

Basic shipping requirements:

UN number

UN1950

Proper shipping name

Aerosols, flammable

Hazard class

2.1

IMDG (Marine Transport)

Basic shipping requirements:

UN number

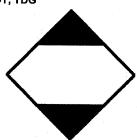
UN1950

Proper shipping name

AEROSOLS

Hazard class

DOT; TDG



IATA; IMDG



15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Canada CEPA Schedule I: Listed substance

1,1-Difluoroethane (CAS 75-37-6)

Listed.

Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number

Heptane (CAS 142-82-5)

1 TONNES

Naphtha (petroleum), hydrotreated light (CAS

1 TONNES

64742-49-0)

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

1,1-Difluoroethane (CAS 75-37-6)

Precursor Control Regulations

Not regulated.

WHMIS 2015 Exemptions

Not applicable

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Heptane (CAS 142-82-5)

Listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - Yes Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

No

SARA 311/312 Hazardous

No

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

1,1-Difluoroethane (CAS 75-37-6)

US state regulations

US - California Hazardous Substances (Director's): Listed substance

Heptane (CAS 142-82-5)

Naphtha (petroleum), hydrotreated light (CAS 64742- Listed.

US - Illinois Chemical Safety Act: Listed substance

Heptane (CAS 142-82-5)

US - Louisiana Spill Reporting: Listed substance

Heptane (CAS 142-82-5)

Listed.

US - Minnesota Haz Subs: Listed substance

Heptane (CAS 142-82-5)

Listed. Naphtha (petroleum), hydrotreated light (CAS 64742- Listed.

US - New Jersey RTK - Substances: Listed substance

1,1-Difluoroethane (CAS 75-37-6)

Heptane (CAS 142-82-5)

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

US - Texas Effects Screening Levels: Listed substance

1,1-Difluoroethane (CAS 75-37-6)

Listed.

Heptane (CAS 142-82-5)

Listed.

Naphtha (petroleum), hydrotreated light (CAS

Listed.

64742-49-0) US. Massachusetts RTK - Substance List

1,1-Difluoroethane (CAS 75-37-6)

Heptane (CAS 142-82-5)

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

US. New Jersey Worker and Community Right-to-Know Act

1,1-Difluoroethane (CAS 75-37-6)

US. Pennsylvania Worker and Community Right-to-Know Law

Heptane (CAS 142-82-5)

Naphtha (petroleum), hydrotreated light (CAS 64742-49-0)

US. Rhode Island RTK

1,1-Difluoroethane (CAS 75-37-6)

US. California Proposition 65

Not Listed.

Inventory status

Country(s) or region	Inventory nam
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On inventory (yes/no)*

Canada

Domestic Substances List (DSL)

Yes

Canada

Non-Domestic Substances List (NDSL)

No

United States & Puerto Rico

Toxic Substances Control Act (TSCA) Inventory

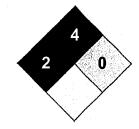
Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

Issue date

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Version#

01

Effective date

31-March-2017

Prepared by

Nu-Calgon Technical Service Phone: (314) 469-7000

Other information

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the

document.