



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product number** 0957\_082  
**Material name** Mist Type Spray Adhesive  
**Revision date** 08-14-2013  
**Company information** Sprayway, Inc.  
1005 S. Westgate Drive  
Addison, IL 60101 United States  
**Company phone** General Assistance 1-630-628-3000  
**Emergency telephone US** 1-866-836-8855  
**Emergency telephone outside US** 1-952-852-4646  
**Version #** 02  
**Supersedes date** 08-14-2013

## 2. Hazards Identification

**Emergency overview** DANGER  
  
EXTREMELY FLAMMABLE. CONTENTS UNDER PRESSURE.  
Aerosol. Pressurized container may explode when exposed to heat or flame. May cause flash fire or explosion.  
  
Will be easily ignited by heat, spark or flames. Prolonged exposure may cause chronic effects.  
This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

**OSHA regulatory status**

**Potential health effects**

**Routes of exposure** Inhalation. Ingestion. Skin contact. Eye contact.

**Eyes** Contact with eyes may cause irritation.

**Skin** Contact with skin may cause irritation.

**Inhalation** Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Prolonged inhalation may be harmful.

**Ingestion** Harmful if swallowed. Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion. May cause delayed lung damage.

**Target organs** Central nervous system. Lungs. Respiratory system.

**Chronic effects** Shortness of breath. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. May cause delayed lung injury.

**Signs and symptoms** Discomfort in the chest. Shortness of breath. Narcosis. Decrease in motor functions. Behavioral changes. Coughing.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
n-Hexane	110-54-3	20 - 40
Butane	106-97-8	10 - 20
Dimethyl Ether	115-10-6	10 - 20
n-Heptane	142-82-5	10 - 20
Isobutane	75-28-5	2.5 - 10
Methylcyclopentane	96-37-7	2.5 - 10
Propane	74-98-6	2.5 - 10
Cyclohexane	110-82-7	1 - 2.5
Other components below reportable levels		10 - 20

Product name: Mist Type Spray Adhesive

Product #: 082-005 Version #: 02 Revision date: 08-14-2013 Issue date: 08-14-2013

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## 4. First Aid Measures

### First aid procedures

<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Skin contact</b>	Immediately take off all contaminated clothing. Immediately flush skin with plenty of water. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
<b>Inhalation</b>	If inhalation of gas/fume/vapor/dust/mist from the material is excessive (air concentration is greater than the TLV or health effects are noticed), immediately remove the affected person(s) to fresh air. Call a physician if symptoms develop or persist.
<b>Ingestion</b>	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Rinse mouth thoroughly. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If material is ingested, immediately contact a poison control center.

### Notes to physician

Symptoms may be delayed.

### General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. If you feel unwell, seek medical advice (show the label where possible).

## 5. Fire Fighting Measures

### Flammable properties

Flammable by OSHA criteria. Vapor or gas may spread to distant ignition sources and flash back. Heat may cause the containers to explode. Vapors may travel considerable distance to a source of ignition and flash back. Runoff to sewer may cause fire or explosion hazard.

### Extinguishing media

**Suitable extinguishing media** Foam. Dry powder. Carbon dioxide (CO<sub>2</sub>).

**Unsuitable extinguishing media** Water. Do not use water jet as an extinguisher, as this will spread the fire.

### Protection of firefighters

**Specific hazards arising from the chemical** Fire may produce irritating, corrosive and/or toxic gases.

**Protective equipment and precautions for firefighters** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

### Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. 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 let fire burn out.

### Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk. In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### Hazardous combustion products

May include oxides of sulphur.

## 6. Accidental Release Measures

### Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.

### Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not contaminate water.

### Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Prevent entry into waterways, sewer, basements or confined areas.

## Methods for cleaning up

Should not be released into the environment. Stop the flow of material, if this is without risk. Isolate area until gas has dispersed.

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 MSDS.

## 7. Handling and Storage

### Handling

Vapors may form explosive mixtures with air. 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. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Avoid prolonged exposure. Use only in area provided with appropriate exhaust ventilation. Wash hands thoroughly after handling.

### Storage

Store locked up. Contents under pressure. The pressure in sealed containers can increase under the influence of heat. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS). Level 3 Aerosol.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### ACGIH Biological Exposure Indices Components

Components	Type	Value
n-Hexane (CAS 110-54-3)	BEI	0.4 mg/l

#### US. ACGIH Threshold Limit Values Components

Components	Type	Value
Cyclohexane (CAS 110-82-7)	TWA	100 ppm
n-Heptane (CAS 142-82-5)	STEL	500 ppm
	TWA	400 ppm
n-Hexane (CAS 110-54-3)	TWA	50 ppm

#### US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Cyclohexane (CAS 110-82-7)	PEL	1050 mg/m3
		300 ppm
n-Heptane (CAS 142-82-5)	PEL	2000 mg/m3
		500 ppm
n-Hexane (CAS 110-54-3)	PEL	1800 mg/m3
		500 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3
		1000 ppm

### Engineering controls

Provide adequate ventilation.

### Personal protective equipment

#### Eye / face protection

Wear safety glasses with side shields (or goggles).

#### Skin protection

Wear chemical protective equipment that is specifically recommended by the manufacturer.

#### Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

#### General hygiene considerations

When using do not smoke. Do not get in eyes. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## 9. Physical & Chemical Properties

### Appearance

Compressed liquefied gas.

### Auto-ignition temperature

564.37 °F (295.76 °C) estimated

<b>Boiling point</b>	93.68 °F (34.26 °C) estimated
<b>Color</b>	Tan.
<b>Flammability limits in air, upper, % by volume</b>	8.5 % estimated
<b>Flammability limits in air, lower, % by volume</b>	2 % estimated
<b>Flash point</b>	-156.00 °F (-104.44 °C) Propellant estimated
<b>Form</b>	Aerosol.
<b>Odor</b>	Solvent.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not applicable estimated
<b>Physical state</b>	Gas.
<b>Solubility (water)</b>	Not available.
<b>Specific gravity</b>	0.678 estimated estimated
<b>Vapor pressure</b>	55 - 70 @ 70F estimated
<b>Other data</b>	
<b>Heat of combustion</b>	39.62 kJ/g estimated

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Risk of ignition.
<b>Conditions to avoid</b>	Heat, flames and sparks. Avoid temperatures exceeding the flash point.
<b>Hazardous decomposition products</b>	May include oxides of phosphorus. No hazardous decomposition products are known.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

## 11. Toxicological Information

### Toxicological data

Product	Species	Test Results
Mist Type Spray Adhesive (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rat	4545 mg/kg
<i>Inhalation</i>		
LC50	Mouse	4394.311 mg/l, 15 Minutes, estimated 3430.5779 mg/l, 30 Minutes, estimated 674.7691 mg/l, If <1L: Consumer Commodity Hours, estimated
	Rat	45804.6641 mg/l, 15 Minutes, estimated 985.646 mg/l, 4 Hours, estimated 16 mg/l/4h
LD50	Mouse	717.7034 mg/l, 2 Hours, estimated
NOEL	Monkey	75333.3281 mg/l, 6 Hours, estimated
<i>Oral</i>		
LD50	Mouse	78787.875 mg/kg, estimated
	Rat	
	Wistar rat	222.7273 mg/kg, estimated
<i>Other</i>		
LD50	Mouse	2124.4019 mg/kg, estimated

Components	Species	Test Results
Butane (CAS 106-97-8)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	658 mg/l, 4 Hours
Cyclohexane (CAS 110-82-7)		
<b>Acute</b>		
<i>Inhalation</i>		
NOEL	Monkey	1243 mg/l, 6 Hours
<i>Oral</i>		
LD50	Mouse	1300 mg/kg
	Rat	29820 mg/kg
Dimethyl Ether (CAS 115-10-6)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	494.36 mg/l, 15 Minutes
		385.94 mg/l, 30 Minutes
	Rat	308.5 mg/l, 4 Hours
Isobutane (CAS 75-28-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	52 mg/l, If <1L: Consumer Commodity Hours
n-Heptane (CAS 142-82-5)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	103 mg/l, 4 Hours
LD50	Mouse	75 mg/l, 2 Hours
<i>Other</i>		
LD50	Mouse	222 mg/kg
n-Hexane (CAS 110-54-3)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Mouse	48000 mg/l, 4 Hours
<i>Oral</i>		
LD50	Rat	24 mg/kg
	Wistar rat	49 mg/kg
Propane (CAS 74-98-6)		
<b>Acute</b>		
<i>Inhalation</i>		
LC50	Rat	> 1442.847 mg/l, 15 Minutes
		658 mg/l/4h

\* Estimates for product may be based on additional component data not shown.

<b>Sensitization</b>	Not expected to be hazardous by OSHA criteria.
<b>Acute effects</b>	Acute LD50: 4545 mg/kg, Rat, Dermal
<b>Local effects</b>	Toxic if swallowed.

<b>Chronic effects</b>	Hazardous by OSHA criteria. Prolonged or repeated exposure may cause lung injury. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
<b>Skin corrosion/irritation</b>	Not expected to be hazardous by OSHA criteria.
<b>Epidemiology</b>	Hazardous by OSHA criteria.
<b>Mutagenicity</b>	Not expected to be hazardous by OSHA criteria.
<b>Neurological effects</b>	Hazardous by OSHA criteria.
<b>Reproductive effects</b>	Not expected to be hazardous by OSHA criteria.
<b>Teratogenicity</b>	Not expected to be hazardous by OSHA criteria.
<b>Further information</b>	Symptoms may be delayed.

## 12. Ecological Information

### Ecotoxicological data

Product	Species	Test Results
Mist Type Spray Adhesive (CAS Mixture)		
Algae	IC50	Algae 2055 mg/L, 72 Hours
Crustacea	EC50	Daphnia 44.2727 mg/L, 48 Hours
Fish	LC50	Fish 20.5909 mg/L, 96 Hours
Components	Species	Test Results
Cyclohexane (CAS 110-82-7)		
Algae	IC50	Algae 500.0001 mg/L, 72 Hours
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 23.03 - 42.07 mg/l, 96 hours
n-Heptane (CAS 142-82-5)		
<b>Aquatic</b>		
Fish	LC50	Mozambique tilapia (Tilapia mossambica) 375 mg/l, 96 hours
n-Hexane (CAS 110-54-3)		
<b>Aquatic</b>		
Fish	LC50	Fathead minnow (Pimephales promelas) 2.101 - 2.981 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Ecotoxicity** LC50: 20.59 mg/L, Fish, 96.00 Hours  
 EC50: 44.27 mg/L, Daphnia, 48.00 Hours  
 IC50: 2055 mg/L, Algae, 72.00 Hours  
 Components of this product are hazardous to aquatic life.

**Environmental effects** Harmful to aquatic organisms. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

**Persistence and degradability** Not available.

### Bioaccumulation / Accumulation

#### Bioaccumulative potential

##### Octanol/water partition coefficient log Kow

Butane	2.89
Cyclohexane	3.44
Dimethyl Ether	0.1
Isobutane	2.76
Methylcyclopentane	3.37
n-Heptane	4.66
n-Hexane	3.9
Propane	2.36

#### Partition coefficient

Butane	2.89
Cyclohexane	3.44
Dimethyl Ether	0.1
Isobutane	2.76

Methylcyclopentane	3.37
n-Heptane	4.66
n-Hexane	3.9
Propane	2.36

### 13. Disposal Considerations

<b>Waste codes</b>	D001: Waste Flammable material with a flash point <140 F The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>US RCRA Hazardous Waste U List: Reference</b>	
Cyclohexane (CAS 110-82-7)	U056
<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Incinerate the material under controlled conditions in an approved incinerator. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	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).
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied. Do not re-use empty containers.

### 14. Transport Information

#### DOT

##### Basic shipping requirements:

<b>UN number</b>	UN1950
<b>Proper shipping name</b>	Aerosols, flammable
<b>Hazard class</b>	2.1
<b>Subsidiary hazard class</b>	None
<b>Special precautions</b>	Read safety instructions, MSDS and emergency procedures before handling.

##### Additional information:

<b>Special provisions</b>	N82
<b>Packaging exceptions</b>	306
<b>Packaging non bulk</b>	None
<b>Packaging bulk</b>	None

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2013, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/13 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

#### IATA

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	Aerosols, flammable
<b>Transport hazard class(es)</b>	2.1
<b>Labels required</b>	2.1
<b>ERG code</b>	10L
<b>Special precautions for user</b>	Read safety instructions, MSDS and emergency procedures before handling.
<b>Packaging Exceptions</b>	LTD QTY

#### IMDG

<b>UN number</b>	UN1950
<b>UN proper shipping name</b>	AEROSOLS
<b>Transport hazard class(es)</b>	2
<b>Labels required</b>	2.1
<b>EmS</b>	F-D, S-U
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not applicable.
<b>Packaging Exceptions</b>	LTD QTY



## 15. Regulatory Information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

All components are on the U.S. EPA TSCA Inventory List.

### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Not regulated.

### DEA Exempt Chemical Mixtures Code Number

Not regulated.

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration

Cyclohexane (CAS 110-82-7) 1.0 %

n-Hexane (CAS 110-54-3) 1.0 %

### US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

Cyclohexane (CAS 110-82-7) Listed.

n-Hexane (CAS 110-54-3) Listed.

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

Not regulated.

### CERCLA (Superfund) reportable quantity

n-Hexane: 5000

Cyclohexane: 1000

### 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

**Section 302 extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	No



Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**State regulations** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

**US - New Jersey RTK - Substances: Listed substance**

Butane (CAS 106-97-8)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
Dimethyl Ether (CAS 115-10-6)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methylcyclopentane (CAS 96-37-7)	Listed.
n-Heptane (CAS 142-82-5)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Propane (CAS 74-98-6)	Listed.

**US. Pennsylvania RTK - Hazardous Substances**

Butane (CAS 106-97-8)	Listed.
Cyclohexane (CAS 110-82-7)	Listed.
Dimethyl Ether (CAS 115-10-6)	Listed.
Isobutane (CAS 75-28-5)	Listed.
Methylcyclopentane (CAS 96-37-7)	Listed.
n-Heptane (CAS 142-82-5)	Listed.
n-Hexane (CAS 110-54-3)	Listed.
Propane (CAS 74-98-6)	Listed.

## 16. Other Information

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.