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1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE MR 5416 AE known as	IDH number:	234933
	LOCTITE® All Purpose Spray Adh		
Product type:	Adhesive	Region:	United States
Restriction of Use:	None identified	Contact information:	
Company address:		Telephone:	
		Emergency Telephone:	

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER: CONTENTS UNDER PRESSURE.
EXTREMELY FLAMMABLE AEROSOL.
MAY BE FATAL IF SWALLOWED AND ENTERS AIRWAYS.
CAUSES SKIN IRRITATION.
CAUSES SERIOUS EYE IRRITATION.
MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE AEROSOL	1
SKIN IRRITATION	2
EYE IRRITATION	2A
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3
ASPIRATION HAZARD	1

PICTOGRAM(S)



Precautionary Statements

Prevention:	Keep away from heat, sparks, open flames, hot surfaces - no smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Avoid breathing mist or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves, eye protection, and face protection.
Response:	IF SWALLOWED: Immediately call a physician or poison control center. IF ON SKIN: Wash with plenty of water. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do NOT induce vomiting. If skin irritation occurs: Get medical attention. If eye irritation persists: Get medical attention. Take off contaminated clothing.
Storage:	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.
Disposal:	Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
n-Heptane	142-82-5	30 - 40
Butane	106-97-8	20 - 30
Acetone	67-64-1	10 - 20
Propane	74-98-6	5 - 10

* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Get medical attention.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Ingestion:	Rinse mouth, do not induce vomiting, consult a doctor. Never give anything by mouth to an unconscious person. Get medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

Extinguishing media:	Water spray (fog), foam, dry chemical or carbon dioxide.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Water spray may be ineffective. Water should be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat.
Unusual fire or explosion hazards:	Isolate from heat, electrical equipment, sparks, and open flame. Closed containers may explode when exposed to extreme heat. Contents under pressure. Vapors may accumulate in low or confined areas, travel considerable distance to source of ignition, and flash back. Exposure to temperatures above 49°C (120°F) may cause container to burst. Do not puncture or incinerate pressurized containers.
Hazardous combustion products:	Oxides of carbon.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Remove all sources of ignition. Ensure adequate ventilation. Keep unnecessary personnel away. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

7. HANDLING AND STORAGE

Handling:

During use and until all vapors are gone: Keep area ventilated - do not smoke; extinguish all flames, pilot lights, and heaters; turn off stoves, electrical tools and appliances, and any other sources of ignition. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not puncture or incinerate pressurized containers. Refer to Section 8.

Storage:

Contents under pressure. Do not puncture, incinerate, or expose to temperatures above 48.9 °C (120 °F). Heat from sunlight, radiators, stoves, hot water, and other heat sources could cause container to burst. Store away from ignition sources. Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
n-Heptane	400 ppm TWA 500 ppm STEL	500 ppm (2,000 mg/m ³) PEL	None	None
Butane	1,000 ppm STEL	None	None	None
Acetone	250 ppm TWA 500 ppm STEL	1,000 ppm (2,400 mg/m ³) PEL	None	None
Propane	Included in the regulation but with no data values. See regulation for further details	1,000 ppm (1,800 mg/m ³) PEL	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH.

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available.

Skin protection:

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Aerosol, liquid
Color:	Milky, White
Odor:	Solvent
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	-18 - 100 °C (0.4 - 212°F)
Melting point/ range:	Not available.
Specific gravity:	0.65
Vapor density:	Heavier than air.
Flash point:	Extremely Flammable.
Flashback:	This product exhibits flashback when tested for flame extension.
Flame projection:	45.72 cm (18inch)
Flammable/Explosive limits - lower:	1.1 %
Flammable/Explosive limits - upper:	12.8 %
Autoignition temperature:	Not available.

Flammability:	Not applicable
Evaporation rate:	Faster than ether.
Solubility in water:	Not available.
Partition coefficient (n-octanol/water):	Not available.
VOC content:	64.88 %; 421 g/l
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	Oxides of carbon.
Incompatible materials:	None known
Reactivity:	Not available.
Conditions to avoid:	Do not puncture, incinerate, or expose to temperatures above 48.9 °C (120 °F). Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation. Excessive inhalation of this material causes headache, dizziness, nausea and incoordination. Overexposure may cause nervous system depression. May be harmful or fatal if inhaled.
Skin contact:	Causes skin irritation. Itching. Redness. Burning sensation.
Eye contact:	Causes serious eye irritation. Direct spray or vapors will irritate and may harm eyes.
Ingestion:	Not expected under normal conditions of use. Do not taste or swallow. May be harmful or fatal if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
n-Heptane	Inhalation LC50 (Rat, 4 h) = 103 mg/l	Central nervous system, Irritant
Butane	Inhalation LC50 (Rat, 4 h) = 658 mg/l	Cardiac, Central nervous system, Irritant
Acetone	Oral LD50 (Mouse) = 5.2 g/kg Oral LD50 (Mouse) = 3,000 mg/kg Oral LD50 (Rabbit) = 5,340 mg/kg Oral LD50 (Rat) = 5,800 mg/kg Oral LD50 (Rat) = 9,800 mg/kg Dermal LD50 (Rabbit) = 20,000 mg/kg Inhalation LC50 (Rat, 4 h) = 76 mg/l	Central nervous system, Irritant
Propane	None	Cardiac, Central nervous system, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
n-Heptane	No	No	No
Butane	No	No	No
Acetone	No	No	No
Propane	No	No	No

12. ECOLOGICAL INFORMATION

Ecological information: Not available.

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: D001: Ignitable.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Aerosols
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Aerosols, flammable
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None
Exceptions: May Qualify as Consumer Commodity, (Not more than 500 ml), ID8000

Water Transportation (IMO/IMDG)

Proper shipping name: AEROSOLS
Hazard class or division: 2.1
Identification number: UN 1950
Packing group: None

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis

CERCLA/SARA Section 302 EHS: None above reporting de minimis.
CERCLA/SARA Section 311/312: Fire, Sudden Release, Immediate Health, Delayed Health
CERCLA/SARA Section 313: None above reporting de minimis.
CERCLA Reportable quantity: n-Heptane (CAS# 142-82-5) 100 lbs. (45.4 kg)
Butane (CAS# 106-97-8) 100 lbs. (45.4 kg)
Acetone (CAS# 67-64-1) 5,000 lbs. (2,270 kg)
Propane (CAS# 74-98-6) 100 lbs. (45.4 kg)

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New Safety Data Sheet format.

Prepared by: Regulatory Affairs

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