

**SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Trade Name (As Labeled)	R-27780
Chemical Name:	Hexane / Acetone / Toluene
Product Number:	R-27780
Uses:	Flammable Brush Grade Contact Adhesive.
UN Number:	UN 1133
UN Dangerous /goods Class/Subsidiary Risk:	Hazard Class 3 Packing Group II
Manufacture's Name:	Hanna Rubber Company
Address:	908 W. 25th St. Kansas City, MO 64108
Emergency Phone:	(800) 424-9300 (CHEMTREC)
Business Phone:	(816) 221-9600 (Product Information)
Date of Preparation:	10/8/2003
Date of last revision:	9/29/2022

SECTION 2 HAZARD IDENTIFICATION**OSHA Hazards**

Flammable liquids, Target Organs Effect, Irritant, Teratogen.

Target Organs

Peripheral liquids, Kidney, Liver, Testes

GHS Classification

Flammable liquids (Category 2)
Skin irritation (Category 3)
Eye irritation (Category 2B)
Reproduction toxicity (Category 3)
Specific target organ toxicity - single exposure (Category 3)
Aspiration hazard (Category 3)
Acute aquatic toxicity (Category 3)



Signal Word

DANGER

Hazard Statement's)

H225	Highly Flammable liquid and vapor.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H304	May be fatal if swallowed and enters airways.
H315 + H320	Causes skin and eye irritation.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure if inhaled.
H401	Toxic to aquatic life.

Precautionary Statement's)

P-210	Keep away from heat/sparks/open flames/hot surfaces- NO Smoking
P233	Keep container tightly closed.
P240	Ground / Bond container and receiving equipment
P264	Wash skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves / eye protection / face protection.
P-301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P331	Do not induce vomiting

HMIS Classification

Health Hazard:	2
Chronic Health Hazard:	*
Flammability:	3
Physical Hazard:	0

NFPA Rating

Health Hazard:	2
Fire:	3
Reactivity Hazard:	0

Potential Health Effects

Inhalation:	May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Skin:	May be harmful if absorbed through skin. Causes skin irritation.
Eyes:	Causes eye irritation.
Ingestion:	May be harmful if swallowed.

SECTION 3 COMPOSITION INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NO.	EC-No.	WT % RANGE
1	Acetone	67-64-1	200-662-2	27-35 %
2	Hexane	110-54-3	203-777-6	32-40 %
3	Toluene	108-88-3	203-625-9	10-19 %

Any remaining ingredients (to comprise 100% of the product) should be considered a proprietary blend of non-hazardous substances, or materials below threshold reporting limits.

SECTION 4 - FIRST AID MEASURES

Consult a physician. Show this safety data sheet to the doctor in attendance.

EYE CONTACT: Flush with large quantities of water for at least 15 minutes or until irritation subsides. Contact a Physician.

SKIN CONTACT: Wash with soap and water, Consult a physician.

INHALATION: Move to fresh air. If not breathing ,give artificial respiration. If breathing is difficult, give oxygen. Contact a Physician immediately.

INGESTION: Do not induce vomiting. If irritation or complications arise, contact a Physician or Regional Poison Control Center immediately.

SECTION 5 - FIRE FIGHTING MEASURES

Conditions of Flammability:

Flammable in the presents of a source of ignition when the temperature is above the flash point keep away from heat/sparks/open flam/hot surface. **NO Smoking!**

Suitable extinguishing media:

Use water spray, Dry chemical, Carbon dioxide(CO2), Water spray, Alcohol-resistant foam.

Hazardous combustion products:

Hazardous decomposition products form under fire conditions-Carbon oxides.

Precautions for fire-fighting:

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material handling point.

Wear full fire fighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).

Further Information:

Use water spray to cool unopened containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions:

Use personal protectective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personal to safe areas. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

Environmental Precautions:

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and materials for containment and clean up:

Contain spillage, and the collect with an electrically protected vacuum cleaner or wet-brushing and place in container for disposal according to local regulations.

SECTION 7 - HANDLING AND STORAGE

Precautions for safe handling:

HANDLING INFORMATION: KEEP OUT OF THE REACH OF CHILDREN. Avoid skin and eye contact. Avoid breathing vapors. Use only in a well ventilated area.

Storage information: Store away from caustics and oxidizers. Keep away form heat, sparks, and flames. Keep containers tightly closed when not in use. Keep containers from excessive heat and freezing. Use and store containers in a well ventilated area.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION
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SDS Components	CAS-No.	Value	Exposure Limits	Governing Body
Acetone	67-64-1	TWA	500 ppm	USA, ACGIH (TLV)
Hexane	110-54-3	TWA	50 ppm	USA, ACGIH (TLV)
Toluene	108-88-3	TWA	20 ppm	USA, ACGIH (TLV)
Acetone	67-64-1	STEL	750 ppm	USA, ACGIH (TLV)
Acetone	67-64-1	STEL	1000 ppm	USA, OSHA - Table Z-1 Limits
Acetone	67-64-1	TWA	1000 ppm	USA, OSHA - Table Z-1 Limits
Acetone	67-64-1	TWA	750 ppm	USA, OSHA - Table Z-1 Limits
Hexane	110-54-3	TWA	50 ppm	USA, OSHA - Table Z-1 Limits
Toluene	108-88-3	TWA	100 ppm	USA, OSHA - Table Z-1 Limits
Toluene	108-88-3	STEL	150 ppm	USA, OSHA - Table Z-1 Limits
Hexane	110-54-3	TWA	500 ppm	USA, OEL(OSHA)-Table Z-1 Limits
Toluene	108-88-3	TWA	200 ppm	USA, Occupational Exposure Limits-Table Z-2
Acetone	67-64-1	TWA	250 ppm	USA, NIOSH Recommended Exposure Limits.
Hexane	110-54-3	TWA	50 ppm	USA, NIOSH Recommended Exposure Limits.

Engineering Controls:

Provide sufficient mechanical ventilation (local or general exhaust) to maintain exposures below PEL and TLV. Vapors are heavier than air and will collect in low areas. Check all low areas (basements, sumps, ect.) for vapors before entering.

Respiratory Protection:

When risk assessment shows air-purifying respirators are appropriate use full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Hand Protection:

Handle with gloves. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye Protection:

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU)

Skin and Body Protection:

Impervious clothing, Flame retardant protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid, Amber to Clear

Odor: Aliphatic

PH: Not Applicable

Boiling Point: 68.89 C 156.0 Deg. F

Flash Point: -26.00 Deg. C (-14.8 Deg. F) Closed cup
Evaporation Rate: 15.8 n-Butyl Acetate
Ignition Temperature: 233.9 C (453.0 F)
Upper Explosion Limits: 7.0 %
Lower Explosion Limits: 1.2%
Vapor Pressure: 341.3 hPa (256.0 mmHg) at 37.7 Deg. C (99.9 Deg F)
Vapor Density: 0.659 g/cm³ at 25 Deg. C (77 Deg. F)
Water Solubility: Miscible
Partition Coefficients: N/A
Lbs. per Gal. 6.73

SECTION 10 - STABILITY AND REACTIVITY

Chemical Stability:

Stable under recommended storage conditions.

Possibility of Hazardous Reactions:

Vapors may form explosive mixture with air.

Conditions to Avoid:

Heat, Flames and sparks, Extremes of temperature and direct sunlight.

Materials to Avoid:

Oxidizing agents

Hazardous Decomposition Products:

Hazardous Decomposition Products formed under fire conditions,-Carbon Oxides
Other decomposition products- no data available

SECTION 11 - TOXICOLOGICAL PROPERTIES

Acute Toxicity:

Oral LD50

LD 50 Oral- rat-25,000 mg/kg

Remarks: Behavioral: Altered sleep time (including change in righting reflex) Behavioral: Tremor

Inhalation LC50

LC 50 Inhalation-rat-4 h-48,000 ppm

Dermal LD50

No data available.

Other information on Acute Toxicity:

No data available

Skin Corrosion/Irritation:

No data available

Serious Eye Damage/Eye Irritation:

Eyes - rabbit - Mild eye irritation.

Respiratory or Skin Sensitization:

No data available

Germ Cell Mutagenicity:

No data available

Carcinogenicity

Carcinogenicity - rat - inhalation

Tumorigenic: Carcinogenic by RTECS criteria. Tumorigenic Effects: Testicular tumors.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as problem, possible or confirmed human carcinogen.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as problem, possible or confirmed human carcinogen.

NPT: No component of this product present at levels greater than or equal to 0.1% is identified as problem, possible or confirmed human carcinogen.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as problem, possible or confirmed human carcinogen.

Reproductive Toxicity:

Overexposure may cause reproductive disorders based on tests with laboratory animals. Suspected human reproductive toxicant Suspected of damaging fertility.

Teratogenicity:**Specific Target Organs Toxicity- Single Exposure (GHS)**

May cause drowsiness or dizziness.

Specific target organ toxicity - single exposure (GHS)

Ingestion - May cause damage to organs through prolonged exposure - Nervous system.

Aspiration Hazard:

May be fatal if swallowed and enters airways.

Potential Health Effects:

Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.

Ingestion: May be harmful if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage.

Skin: May be harmful if absorbed through skin. Causes skin irritation.

Eyes: Causes eye irritation.

Signs and Symptoms of Exposure:

Prolonged or repeated contact with skin may cause: defatting, Dermatitis, Contact with eyes can cause: Redness, Blurred vision, Provokes tears. Effects due to ingestion may include: Gastrointestinal discomfort, Central nervous system depression, Lung irritation, chest pain, pulmonary edema, giddiness, slow reaction time, slurred speech, Headache, Dizziness, Drowsiness.

Synergistic Effects: No data available

Additional Information:

RTECS: MN9275000

SECTION 12 - ECOLOGICAL INFORMATION
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Toxicity:

Toxicity to Fish LC50 - Pimephales promelas (Flathead Minnow) - 2.5 mg/l - 96 h

Toxicity to Daphnia LC50 - Daphnia magna (Water flea) - 3,878 mg/l - 48 h
and other aquatic invertebrates.

Toxicity to Algeae EC50 - Chlorella Vulgaris (Fresh water Algae) - 12,840.00 mg/l - 3 h
EC50 Skeletoma - 0.30 mg/l - 8h

Persistence and Degradability:

No data available

Bioaccumulative Potential:

No data available

Mobility in Soil:

No data available

PBT and vPvB Assessment:

No data available

Other Adverse Effects:

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Product:

Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

WASTE MANAGEMENT/DISPOSAL: Dispose of according to Federal, State, and Local Standards. Discarded material should be incinerated at a permitted facility. Liquids cannot be disposed of in a landfill. Do not reuse empty containers. State and Local regulations/restrictions are complex and may differ from Federal regulations. Responsibility for proper waste disposal is with the owner of the waste.

SECTION 14 - TRANSPORTATION INFORMATION
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DOT (US):

DOT PROPER SHIPPING NAME: UN1133, Adhesive, containing a flammable liquid, Class 3, PG II

DOT HAZARD Class: 3

DOT UN/NA NUMBER: UN 1133 Packing Group: II

Reportable Quantity (RQ): 5000 Lbs.

Marine pollutant: No

Poison Inhalation Hazard: No

IMDG:

UN number: 1133 Class: 3 Packing Group: II
 Proper shipping name: Adhesive , containing a flammable liquids
 Marine pollutant: No

IATA:

UN number 1133 Class: 3 Packing Group: II
 Proper shipping name: Adhesive , containing a flammable liquids

DANGER : Highly Flammable Liquid and Vapor

SECTION 15 - REGULATORY INFORMATION
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OSHA Hazards

Flammable liquids, Target Organs Effect, Irritant, Teratogen.

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III Section 302

SARA 313 Components:

The following components are subject to reporting levels established by SARA Title III, Section 313.

n-Hexane CAS # 110-54-3
 Toluene CAS # 108-88-3

SARA 311/312 Hazard :

Fire Hazard, Acute Health Hazard, Chronic Health hazard.

CERCLA Reportable Quantity:

Components	CAS #	Components RQ (lbs)	Calculated product RQ (lbs)
Acetone	67-64-1	5,000	*
Hexane	110-54-3	5,000	*
Toluene	108-88-3	1,000	*

* Calculated RQ exceeds reasonably attainable upper limit.

CLEAN AIR ACT:

The following chemical(s) are listed as HAP under the U.S. Clean Air Act, Section 12 (40 CFR 61):

110-54-3	Hexane	36%
108-88-3	Toluene	11%
100-41-4	Ethylbenzene	0.0999%
71-43-2	Benzene	0.0999%
98-82-8	Cumene	0.0004%

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or final VOC's (40 CFR 60.489):

108-88-3	Toluene	11%
100-41-4	Ethylbenzene	0.0999%
71-43-2	Benzene	0.0999%
98-82-8	Cumene	0.0004%

CLEAN WATER ACT:

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

108-88-3	Toluene	11%
100-41-4	Ethylbenzene	0.0999%
71-43-2	Benzene	0.0999%
91-20-3	Naphthalene	0.0999%

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

108-88-3	Toluene	11%
100-41-4	Ethylbenzene	0.0999%
71-43-2	Benzene	0.0999%
91-20-3	Naphthalene	0.0999%

This product contains the following toxic pollutants listed under the U.S. Clean Water Act Section 307:

108-88-3	Toluene	11%
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Massachusetts Right to Know Components:

	CAS #	Revision Date
Hexane	110-54-3	9/29/2022
Acetone	67-64-1	
Toluene	108-88-3	

Pennsylvania Right to Know Components:

	CAS #	Revision Date
Hexane	110-54-3	9/29/2022
Acetone	67-64-1	
Toluene	108-88-3	

New Jersey Right to Know Components:

	CAS #	Revision Date
Hexane	110-54-3	9/29/2022
Acetone	67-64-1	
Toluene	108-88-3	

The components of this product are reported in the following inventories:

Country(s) or region	Inventory name	On inventory (yes/no)
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
	Inventory of Chemical Substances (ISHL)	
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Phillippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

California Prop. 65 Components:

WARNING: This product contains chemicals known to the state of California to cause birth defects or other reproductive harm.

Toluene CAS #108-88-3 / n-Hexane CAS #110-54-3

For more information, go to "www.P65Warnings.ca.gov."

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0

REASON FOR REVISION: To Correct MSDS Number/Change OSHA Hazcom Information

HAP less water, less exempt solvent: 4.81 # Per Gal.

HAP less water, less exempt solvent: 479.92 Grams Per Liter

VOC less water, less exempt solvent: 4.81 # Per Gal.

VOC less water, less exempt solvent: 479.92 Grams Per Liter.

Product Shelf Life: 12 Months from the date of Mfg. in an unopened sealed container.

This data is offered in good faith as typical value and not as a product specification.

No warranty either express or implied, is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review the recommendations in specific context of the intended use and determine if they are appropriate.

< End of SDS >