

MATERIAL SAFETY DATA SHEET**SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION****Manufacturer's name and address:****HENRY.**

The W.W. Henry Company

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Visit our Website: <http://www.wwhenry.com>**24 Hr. Emergency Tel #** : CHEM-TEL: 1-800-255-3924 OR 1-813-248-0585 (call collect)**Product Identifier** : **HENRY 473 Contact Adhesive****Chemical Name** : N/Ap**Chemical Family** : Mixture.**Chemical Formula** : N/Ap**Trade Name/Synonyms** : HENRY 473 Contact Adhesive**Molecular Weight** : N/Ap**Material Use** : Solvent-dispersed synthetic rubber resin adhesive.**WHMIS Classification** : Class B2 (Flammable Liquids)
Class D2A (Materials Causing Other Toxic Effects, Very Toxic Material)
Class D2B (Materials Causing Other Toxic Effects, Toxic Material)**HMIS Rating** : * - Chronic hazard 0 - Minimal 1 - Slight 2 - Moderate 3 - Serious 4 - Severe*Health:* *3 *Flammability:* 1 *Reactivity:* 0**SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS**

<u>Ingredients</u>	<u>CAS #</u>	<u>% (weight)</u>	<u>ACGIH TLV</u>		<u>OSHA PEL</u>	
			<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>
Hexane	110-54-3	15.00 - 40.00	50 ppm (skin)	N/Av	500 ppm ; 1800 mg/m ³	N/Av
Acetone	67-64-1	15.00 - 40.00	500 ppm	750 ppm	1000 ppm ; 2400 mg/m ³	N/Av
Toluene	108-88-3	10.00 - 30.00	20 ppm	N/Av	200 ppm	N/Av
Magnesium carbonate	1309-48-4	1.00 - 5.00	10 mg/m ³ (inhalable fraction)	N/Av	15 mg/m ³ (total particulate)	N/Av

Note: This product does NOT contain asbestos.

This material is classified as hazardous under OSHA regulations (29CFR 1910.1200).

SECTION 3 - HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Straw coloured liquid. Characteristic solvent odour.

DANGER! Extremely flammable liquid and vapour. May cause severe eye irritation. May cause moderate skin irritation. May be harmful if inhaled or swallowed. May cause respiratory irritation. May cause central nervous system depression. May be an aspiration hazard. Prolonged or repeated skin contact may cause drying and irritation. Potential teratogen.

*****POTENTIAL HEALTH EFFECTS*******Target organs** : Eyes, skin, respiratory system and digestive system.**Routes of exposure** : *Inhalation:* YES *Skin Absorption:* NO *Skin & Eyes:* YES *Ingestion:* YES**Signs and symptoms of short-term (acute) exposure***Inhalation* : May cause irritation to the nose, throat and upper respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.*Skin* : May cause mild to moderate skin irritation.

- Eyes* : Causes moderate to severe irritation.
- Ingestion* : Ingestion of large amounts may cause stomach irritation. Symptoms may include nausea, vomiting, dizziness, drowsiness and other symptoms of central nervous system depression. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Effects of long-term (chronic) exposure

- : Prolonged or repeated contact may cause drying, cracking and defatting of the skin. Nerves in the extremities may be damaged by prolonged overexposure, possibly irreversibly.

Conditions aggravated by overexposure

- : Pre-existing skin, eye and respiratory disorders.

Carcinogenic status

- : See TOXICOLOGICAL INFORMATION, Section 11.

Additional health hazards

- : Potential teratogen. See TOXICOLOGICAL INFORMATION, Section 11.

Potential environmental effects

- : See ECOLOGICAL INFORMATION (Section 12).

SECTION 4 - FIRST AID MEASURES

- Inhalation** : If inhaled, move to fresh air. If breathing stopped, begin artificial respiration. Get medical attention.
- Skin contact** : Remove/Take off immediately all contaminated clothing. Wash off with soap and plenty of water. If irritation persists, seek prompt medical attention.
- Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes. Obtain medical attention immediately.
- Ingestion** : Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Seek immediate medical attention/advice. If vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration.
- Notes For Physician** : Treat symptomatically.

SECTION 5 - FIRE FIGHTING MEASURES

Fire hazards/conditions of flammability

- : Extremely flammable liquid. Closed containers may rupture if exposed to excess heat or flame due to a build-up of internal pressure. Vapours may be heavier than air and may collect in confined and low-lying areas. Vapour can travel considerable distance and flashback to a source of ignition. Material will float on water and can be re-ignited at the water's surface.

Flammability classification (OSHA 29 CFR 1910.1200)

- : Flammable Liquid Class 1B.

Flash point

- : (-21) - 4°C / (-7) - 39°F

Flash point Method

- : estimated

Auto-ignition temperature : N/Av

Lower flammable limit (% by vol.)

- : 1.1 (based on ingredients)

Upper flammable limit (% by vol.)

- : 13.0 (based on ingredients)

Oxidizing properties

- : None.

Flame Projection Length

- : Not applicable.

Flashback observed

- : Not applicable.

Explosion data: Sensitivity to mechanical impact / static discharge

- : Not expected to be sensitive to mechanical impact. May be sensitive to static discharge.

Suitable extinguishing media

- : Dry chemical, foam, carbon dioxide and water fog.

Special fire-fighting procedures/equipment

- : Firefighters should wear proper protective equipment and self contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame. After fires have been extinguished, carefully clean all equipment and surfaces exposed to fumes.

Hazardous combustion products

- : Carbon oxides; Hydrocarbons; Aldehydes; Hydrogen chloride gas; other unidentified organic compounds.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- Personal precautions** : Restrict access to area until completion of clean-up. All persons dealing with clean-up should wear the appropriate chemically protective equipment. Refer to point 8 on this Safety Data Sheet, EXPOSURE CONTROLS / PERSONAL PROTECTION, for additional information on acceptable personal protective equipment.
- Environmental precautions** : Do not allow product to enter waterways. Do not allow material to contaminate ground water system.
- Spill response/cleanup** : Ventilate area of release. Eliminate all ignition sources. Stop spill or leak at source if safely possible. Contain and absorb spilled liquid with non-combustible, inert absorbent material (e.g. sand), then place absorbent material into a container for later disposal (see Section 13). Flush with water. Do not flush into surface water or sanitary sewer system. Notify the appropriate authorities as required.
- Prohibited materials** : None known.
- Special spill response procedures** : If a spill/release in excess of the EPA reportable quantity is made into the environment, immediately notify the national response center in the United States (phone: 1-800-424-8002).
US CERCLA Reportable quantity (RQ): Hexane (5000 lbs / 2270 kg); Acetone (5000 lbs / 2270 kg); Toluene (1000 lbs / 454 kg).

SECTION 7 - HANDLING AND STORAGE

- Safe Handling procedures** : Wear suitable protective equipment during handling. Use with adequate ventilation. Training the workers on the potential health hazards associated with product vapor, dust or fume is important. Secondary inhalation exposures could occur when cleaning equipment, or when removing or laundering the clothing. Avoid breathing vapors, fumes or dust. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Keep away from oxidizing materials. Keep containers tightly closed when not in use. Wash thoroughly after handling.
- Storage requirements** : Store in a cool, dry, well-ventilated area. No smoking in the area. Do not store near any incompatible materials (see Section 10). Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Protect against physical damage.
- Incompatible materials** : See Section 10.
- Special packaging materials** : Always keep in containers made of the same materials as the supply container.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

- Ventilation and engineering measures** : Use with adequate ventilation. Provide adequate cross air circulation. Use general or local exhaust ventilation to maintain air concentrations below recommended exposure limits.
- Respiratory protection** : If airbourne concentrations are above the permissible exposure limit or are not known, use NIOSH-approved respirators.
- Skin protection** : Where contact is likely, impervious gloves are recommended. Advice should be sought from glove suppliers.
- Eye / face protection** : Chemical splash goggles are recommended. A full face shield may also be necessary.
- Other protective equipment** : Full chemical-resistant protective clothing should be used whenever splashing is anticipated. An eyewash station and safety shower should be made available in the immediate working area.
- General hygiene considerations** : Avoid contact with eyes, skin and clothing. Avoid breathing vapors, fumes or dust. Do not eat, drink or smoke when using this product. Clean all equipment and clothing at end of each work shift.
- Permissible exposure levels** : For individual ingredient exposure levels, see Section 2.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: liquid	Appearance	: Straw coloured liquid.
Odour	: Characteristic solvent odour.	Odour threshold	: N/Av
pH	: N/Av		
Boiling point	: >66.7°C / >152°F	Specific gravity	: 0.82
Melting/Freezing point	: N/Av	Coefficient of water/oil distribution	: N/Av
Vapour pressure (mmHg @ 20° C / 68° F)		Solubility in water	: negligible

	: 180		
Vapour density (Air = 1)	: N/Av	Evaporation rate (n-Butyl acetate = 1)	: N/Av
Volatile organic Compounds (VOC's)	: 430 g/L (calculated at 21°C / 70°F, SCAQMD)	Volatiles (% by weight)	: 79 (30 min. @ 135°C / 275°F)
Particle size	: N/Av	General Info.	: N/Av

SECTION 10 - REACTIVITY AND STABILITY DATA

Stability and reactivity	: Stable under the recommended storage and handling conditions prescribed.
Hazardous polymerization	: Hazardous polymerisation does not occur.
Conditions to avoid	: Keep this product away from heat, sparks, flame, and other sources of ignition (e.g. pilot lights, electric motors, static electricity).
Materials To Avoid And Incompatibility	: Strong oxidizing agents; Reducing agents; Acids and bases.
Hazardous decomposition products	: None known, refer to hazardous combustion products in Section 5.

SECTION 11 - TOXICOLOGICAL INFORMATION

Toxicological data	: There is no available data for the product itself, only for the ingredients. See below for individual ingredient acute toxicity data.
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<u>Ingredients</u>	<u>LC₅₀(4hr)</u> <u>inh, rat</u>	<u>LD₅₀</u>	
		<u>oral</u>	<u>dermal</u>
Hexane	38,500 ppm	28,700 mg/kg	N/Av
Acetone	30,000 ppm	5800 mg/kg	>16,000 mg/kg
Toluene	7585ppm/4H	5580mg/kg	12125mg/kg
Magnesium carbonate	N/Av	N/Av	N/Av

Carcinogenic status	: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.
Reproductive effects	: None known.
Teratogenicity	: Contains Toluene. Toluene may cause fetotoxic effects at doses which are not maternally toxic, based on animal data.
Mutagenicity	: None known.
Epidemiology	: Not available.
Sensitization to material	: Not expected to be a skin or respiratory sensitizer.
Synergistic materials	: N/Av
Irritancy	: Irritating to eyes, respiratory system and skin.
other important hazards	: See Section 3 for additional information.



SECTION 12 - ECOLOGICAL INFORMATION

Environmental effects	: The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters.
Important environmental characteristics	: N/Av
Ecotoxicological	: No data is available on the product itself.

SECTION 13 - DISPOSAL CONSIDERATIONS

Handling for Disposal	: Handle waste according to recommendations in Section 7.
Methods of Disposal	: Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.
RCRA	: If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the responsibility of the waste generator to determine the proper waste identification and disposal method. For disposal of unused or waste material, check with local, state and federal environmental agencies.

SECTION 14 - TRANSPORTATION INFORMATION

Regulatory Information	UN Number	Shipping Name	Class	Packing Group	Label
TDG	UN1133	ADHESIVES containing flammable liquid	3	II	
TDG Additional information	None.				
49CFR/DOT	UN1133	Adhesives	3	II	
49CFR/DOT Additional information	None.				

SECTION 15 - REGULATORY INFORMATION

Canadian Information:

Canadian WHMIS Classification: *This product is a WHMIS Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Controlled Products Regulations (CPR). Refer to Section 1 for a WHMIS Classification for this product.*

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

Canadian Environmental Protection Act (CEPA): *All components of this product are on the Canadian DSL list.*

US Federal Information:

TSCA: All listed ingredients appear on the Toxic Substances Control Act (TSCA) inventory.

CERCLA Reportable Quantity (RQ) (40 CFR 117.302): See Section 6

SARA TITLE III: Sec. 313, Toxic Chemicals Notification, 40 CFR 372: This product may be subject to SARA notification requirements, since it contains Toxic Chemical constituents above their de minimus concentrations. This product contains: Hexane; Toluene

US State Right to Know Laws:

California Proposition 65: This product contains a chemical known to the State of California to cause developmental harm. This product contains: Toluene.

SECTION 16 - OTHER INFORMATION

Legend

- : ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstract Services
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act of 1980
- CFR: Code of Federal Regulations
- DOT: Department of Transportation
- DSL: Domestic Substances List
- EPA: Environmental Protection Agency
- IARC: International Agency for Research on Cancer
- N/Av: not available
- N/Ap: not applicable
- NIOSH: National Institute of Occupational Safety and Health
- NTP: National Toxicology Program
- OSHA: Occupational Safety and Health Administration
- PEL: Permissible exposure limit
- RCRA: Resource Conservation and Recovery Act
- SARA: Superfund Amendments & Reauthorization Act

STEL: Short Term Exposure Limit
TLV: Threshold Limit Values
TSCA: Toxic Substance Control Act
TWA: Time Weighted Average
WHMIS: Workplace Hazardous Materials Identification System

References

- : 1. ACGIH, Threshold Limit Values and Biological Exposure Indices for 2007.
2. International Agency for Research on Cancer Monographs, searched 2008.
3. Material Safety Data Sheet from manufacturer.
4. US EPA Title III List of Lists - January 27, 2005 version.
5. California Proposition 65 List - July 1, 2008 version.

DISCLAIMER OF LIABILITY

The Information presented herein is supplied as a guide to those who handle or use this product and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive. The manner and conditions of use and handling may involve other and additional considerations. Safe work practices must be employed when working with any materials. It is important that the end user makes a determination regarding the adequacy of the safety procedures employed during the use of this product.

No warranty of any kind is given or implied. The W.W. Henry Company will not be liable for any damages, losses, injuries or consequential damages which may result from the use or reliance on any information contained herein. This Material Safety Data Sheet is valid for three (3) years.

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Visit our Website: <http://www.wwhenry.com>

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