



Section 1. Identification

GHS product Identifier : VM Precoat Adhesive
Other means of identification : Not available

Relevant identified used of the substance or mixtures and uses advised against
Aromatic & aliphatic hydrocarbon adhesive

Supplier's details American Hydrotech, Inc.
303 East Ohio Street
Chicago, Illinois 60611
Tel: (800) 877-6125 (M-F 8 am to 5 pm CST)
PERS #11540: 800-633-8253 (24/7)

Emergency telephone number)
with hours of operation)

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazardous Communications Standard (49CFR1910.1200) .

Classification of the substance or mixture : Flammable liquid- Category 2
Skin Corrosion/Irritation- Category 2
Toxic to reproductive (Fertility)- Category 2
Toxic to reproduction (unborn child)- Category 2
Specific target organ toxicity (single exposure) (Narcotic effects) – Category 3
Specific target organ toxicity (repeated exposure)– Category 2
Aspiration hazard- Category 1
Aquatic toxicity (Chronic) – Category 2

GHS label elements
Hazard pictogram



Signal word : Danger
Hazard statement : Highly flammable liquid and vapor
Causes skin irritation
Suspected of damaging fertility or the unborn child.
May be fatal if swallowed and enters airways.
May cause drowsiness and dizziness.
May cause damage to organs through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

Precautionary statements
Prevention

: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear eye and face protection. Keep away from heat, sparks, open flames and hot surfaces. – No smoking. Use explosion- proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Do not breathe vapor. Wash hands thoroughly after handling.

Section 2. Hazards identification

Response	Collect spillage; Get medical attention if you feel unwell. If exposure or concerned: Get medical attention. 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 SWALLOWED: Immediately call a POISON CENTER or physician. DO NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. Wash with plenty of soap and water. If skin irritation occurs: Get medical attention.
Storage	Store locked up. Store in a well-ventilated place. Keep cool.
Disposal	Dispose of contents and container in accordance with all local, regional, national and international regulations.
Hazards not otherwise classified	: None known

Section 3. Composition/information on ingredients

Substance/Mixture	: Mixture
Other means of identification	: Not available
CAS number/other identifiers	
CAS number	: Not applicable
Product code	: Not applicable

Ingredient name	%	CAS Number
Toluene	30-60	108-88-3
n-Hexane	30-60	110-54-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentration applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures.

Eye contact	: Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 20 minutes. Get medical attention.
Inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway
Skin contact	: Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 20 minutes. Get medical attention.
Ingestion	: Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway.

Section 4. First aid measures

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
Pain or irritation,
Watering,
Redness.

- Inhalation** : Adverse symptoms may include the following:
Nausea or vomiting
Headache
Drowsiness/fatigue
Dizziness/vertigo
Unconsciousness
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

- Skin contact** : Adverse symptoms may include the following:
Irritation
Redness
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

- Ingestion** : Adverse symptoms may include the following:
Nausea or vomiting
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

Indication of immediate medical attention and special treatment needed, if necessary.

- Notes to physician:** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment
- Protection of first-aiders:** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing the aid to give mouth to mouth resuscitation.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media : Use dry chemical, CO₂, water spray (fog) or foam.

Unsuitable extinguishing media : Do not use water- jet or water based fire extinguishers.

Specific hazards arising from the chemical : Highly flammable liquid and vapor. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
Carbon Dioxide
Carbon Monoxide

Special protective equipment : Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Special protective actions for fire fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in a positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures.

For non emergency personal : Evacuate surrounding area. Keep unnecessary and unprotected personnel from entering. Shut off all ignition sources. No flares, smoking, or flames in hazard areas. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

For emergency responders : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel."

Environmental precautions : Avoid disposal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods and materials for containment and cleaning up

Spill : Stop leak if without risk. Move container from spill area. Use spark proof tools and explosion proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements, or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure-obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until safety precautions have been read and understood. Do not get in eyes or on the skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage area or confined spaces unless adequately ventilated. Keep in original container or an approved alternative made from compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flames and any other ignition source. Use explosion-proof electrical (ventilation, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene Eating, drinking and smoking should be prohibited in areas where material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities Store in accordance with local regulations. Store in segregated and approved area. Store in original container protected from direct sunlight in a dry cool and well-ventilated area away from incompatible materials (see section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready to use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Section 8. Exposure controls/personal protection

[Control parameters](#)
[Occupational exposure limits](#)

Ingredient name	Exposure limits
Toluene	<p>NIOSH REL (United States, 6/2009) STEL: 560 mg/m³ for 15 minutes STEL: 150 ppm for 15 minutes TWA: 375 mg/m³ for 10 hours TWA: 100 ppm for 10 hrs</p> <p>OSHA PEL Z2 (United States, 11/2006) AMP: 500 ppm 10 minutes CEIL:300 ppm TWA: 200 ppm 8 hrs</p> <p>ACGIH TLV (United States,3/2012) TWA: 20 ppm 8 hrs</p>
n-Hexane	<p>NIOSH REL (United States, 6/2009) TWA: 180 mg/m³ for 10 hours TWA: 50 ppm for 10 hrs</p> <p>OSHA PEL (United States, 6/2010) TWA: 1800 mg/m³ 8 hrs TWA: 500 ppm 8 hrs</p> <p>ACGIH TLV (United States,3/2012) Absorbed through the skin. TWA: 50 ppm 8 hrs</p>

- Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation.
- Hygiene measure:** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking, and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the work station location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases and dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Chemical splash goggles.
- Skin Protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air purifying or supplied air respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Section 9. Physical and chemical properties

Appearance

Physical state	: Liquid
Color	: Red
Odor	: Hydrocarbon (strong)
Odor threshold	: Not available
pH	: Not applicable
Melting point	: Not applicable
Boiling point	: 67°C (152.6° F)
Flash Point	: Closed cup: -19.4°C (-2.9° F)
Burning time	: Not determined
Burning rate	: Not determined
Evaporation rate:	: 4.5 (ether(anhydrous)=1)
Flammability(solid, gas)	: Not applicable
Lower & upper explosive (flammable) limits	: Lower: 1.2% : Upper: 7.5%
Vapor density	: 20.3 kPa (152 mm Hg) @ room temperature
Vapor pressure	: 3.5 (Air=1)
Relative density	: 0.9
Solubility	: Partially soluble in the following materials: cold and hot water.
Partition coefficient: n- octanol/water	: Not available
Auto- ignition temperature	: Not available
Decomposition temperature	: Not available
SADT	: Not available
Viscosity	: 51-56 KU
VOC	: 527 g/l

Section 10. Stability and reactivity

Reactivity	: No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	: This product is stable.
Possibility of hazardous reactions	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Conditions to avoid:	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
Incompatible materials	: Reactive or incompatible with the following materials: Oxidizing materials, acids, and alkalis.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Toluene	LC50 Inhalation Vapor	Rat	49 g/m ³	4 hours
	LD50 Oral	Rat	636m g/kg	-
n-Hexane	LC50 Inhalation Gas	Rat	48000 ppm	4 hours
	LD50 Oral	Rat	1584 mg/kg	-

Section 11. Toxicological information

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Toluene	Eyes- Mild irritant	Rabbit	-	0.5 minutes 100 mg	-
	Skin- Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Eyes- Mild irritant	Rabbit	-	870 µg	-
	Eyes- Severe irritant	Rabbit	-	24 hours 2 mg	-
	Skin- Mild irritant	Pig	-	24 hours 250 µL	-
	Skin- Mild irritant	Rabbit	-	435 mg	-
	Skin- Moderate irritant	Rabbit	-	500 mg	-
n-Hexane	Eyes- Mild irritant	Rabbit	-	10 mg	-

Sensitization

Skin : There is no data available

Respiratory : There is no data available

Mutagenicity : There is no data available

Carcinogenicity : There is no data available

Classification

Product/ingredient name	OSHA	IARC	NTP
Toluene	-	3	-

Reproductive toxicity : There is no data available

Teratogenicity : There is no data available

Specific target organ toxicity (single exposure)

Name	Category	Route of Exposure	Target organs
Toluene	Category 3	Not applicable	Narcotic effects
n-Hexane	Category 3	Not applicable	Narcotic effects

Specific target organ toxicity (repeated exposure)

Name	Category	Route of Exposure	Target organs
Toluene	Category 2	Not determined	Not determined
n-Hexane	Category 2	Not determined	Not determined

Aspiration hazard

Name	Results
Toluene	Aspiration Hazard- category 1
n-Hexane	Aspiration Hazard- category 1

Information on the likely routes of exposure : Routes of entry anticipated: Oral, dermal, inhalation.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness.

Skin contact : Causes skin irritation.

Ingestion : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach.

Section 11. Toxicological information

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
Pain or irritation,
Watering,
Redness.

Inhalation : Adverse symptoms may include the following:
Nausea or vomiting
Headache
Drowsiness/fatigue
Dizziness/vertigo
Unconsciousness
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

Skin contact : Adverse symptoms may include the following:
Irritation
Redness
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

Ingestion : Adverse symptoms may include the following:
Nausea or vomiting
Reduced fetal weight
Increase in fetal deaths
Skeletal malformations

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : No known significant effects or critical hazards

Potential delayed effects : No known significant effects or critical hazards

Long term exposure

Potential immediate effects : No known significant effects or critical hazards

Potential delayed effects : No known significant effects or critical hazards

Potential chronic health effects

General : May cause damage to organs through prolonged or repeated exposure.

Carcinogenicity : No known significant effects or critical hazards

Mutagenicity : No known significant effects or critical hazards

Teratogenicity : Suspected of damage to unborn child.

Developmental effects : No known significant effects or critical hazards

Fertility effects : Suspected of damage to fertility.

Target organs : Contains material which may cause damage to the following organs: kidneys, the nervous system, the reproductive system, liver, peripheral nervous system, upper respiratory tract, skin, central nervous system (CNS), eye, lens, or cornea.

Numerical measures of toxicity

Acute toxicity estimates : There is no data available

Section 12. Ecological information

<u>Toxicity</u>			
<u>Product/ingredient name</u>	<u>Result</u>	<u>Species</u>	<u>Exposure</u>
Toluene	Acute EC50 433 ppm Marine water	Algae-Skeletonema costatum	96 hours
	Acute EC50 12500 µg/l Fresh water	Algae-Pseudokirchneriella Subcapitata	72 hours
	Acute EC50 11600 µg/l Fresh water	Crustaceans-Gammarus pseudolimnaeus- Adult	48 hours
	Acute EC50 6000 µg/l Fresh water	Daphnia-Daphnia magna-Juvenile (Fledging, Hatching, Weanling)	48 hours
	Acute LC50 5500 µg/l Fresh water	Fish-Oncorhynchus kisutch-Fry	96 hours
	Chronic NOEC 500000µg/l Fresh water	Algae-Pseudokirchneriella subcapitata	96 hours
n-Hexane	Chronic NOEC 1000µg/l Fresh water	Daphnia-Daphnia magna	21 days
	Acute LC50 113000 µg/l Fresh water	Fish-Oreochromis mossambicus	96 hours

Persistence and degradability : There is no data available
Bio accumulative potential

<u>Product/ingredient name</u>	<u>LogP_{ow}</u>	<u>BCF</u>	<u>Potential</u>
Toluene	2.69	8.317637711	low
n-Hexane	3.9	-	low

<u>Mobility in soil</u>	
<u>Soil/water partition coefficient (K_{oc})</u>	: Not applicable
<u>Other adverse effects</u>	: No known significant effects or critical hazards





Section 13. Disposal Considerations

Disposal methods : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recycled products via a licensed waste disposal contractor. Waste should not be disposed of to a sewer. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling empty containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, water ways, drains and sewers.

United States- RCRA Toxic hazardous waste "U" List

<u>Ingredient</u>	<u>CAS#</u>	<u>Status</u>	<u>Reference number</u>
Toluene	108-88-3	Listed	U220

Section 14. Transportation information

	DOT Classification	IMDG	IATA
UN Number	UN 1139	UN 1139	UN 1139
UN Proper Shipping Name	Coating Solution RQ (toluene, n-hexanes)	Coating Solution , Marine Pollutant	Coating Solution
Transportation hazard class(es)	3 	3  	3 
Packing Group	II	II	II
Environmental Hazard	Yes	Yes	Yes
Additional Information	<u>Reportable Quantities</u> 2999.4 lbs/1361.7 kg (399.7 gal/1513 L). Packages sizes shipped in quantities less than the product reportable quantity are not subject to the RQ (reportable quantity) transportation requirements.	Emergency schedules (EmS) F-E, S-E	

Special precautions for user

: Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transportation in bulk according to Annex II of MARPOL 73/78 and the IBC Code

: Not available

Section 15. Regulatory information

U.S. Federal regulations:

Clean Water Act(CWA) 307

Clean Water Act(CWA) 311

Clean Air Act Section 112 (b)

Hazardous air pollutants (HAPs)

Clean Air Act (CAA) Section 602 Class I Substances

Clean Air Act (CAA) Section 602 Class II Substances

DEA List I Chemicals (Precursor chemicals)

DEA List II Chemicals (Essential Chemicals)

SARA 302/304

Composition/information on ingredients

SARA 304 RQ

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

United States inventory (TSCA 8 b): all components are listed or exempted

: Toluene

: Toluene

: Listed

: Not listed

: Not listed

: Not listed

: Listed

: No products found

: Not applicable

Section 15. Regulatory information

SARA 311/312

Classification : Fire Hazard,
Immediate (acute) health hazard,
Delayed (chronic) health.

Composition/information on ingredients

Name	%	Fire Hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed(chronic) health hazard
Toluene	30-60	Yes	No	No	Yes	Yes
n-Hexane	30-60	Yes	No	No	Yes	Yes

SARA 313

	Product name	CAS Number	%
Form R-reporting requirements	Toluene n-Hexane	108-88-3 110-54-3	30-60 30-60
Supplier notification	Toluene n-Hexane	108-88-3 110-54-3	30-60 30-60

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS.

State regulations

Massachusetts

: The following components are listed: Toluene ; n-Hexane

New Jersey

: The following components are listed: Toluene ; n-Hexane

New York

: None of the components are listed: Toluene ; n-Hexane

Pennsylvania

: The following components are listed: Toluene ; n-Hexane

California Prop.65

: **Warning:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level.
Toluene	No	Yes	No	7000 µg/day (ingestion) 13000 µg/day (inhalation)

International regulations

International lists

: Australia inventory (AICS):Not determined

: China inventory (IECSC): Not determined

: Japan inventory : Not determined

: Korea inventory: Not determined

: Malaysia inventory (EHS Register): Not determined

: New Zealand Inventory of Chemicals (NZIoC):Not determined

: Philippines inventory (PICCS): Not determined

: Taiwan inventory (CSNN): Not determined

: Not listed

Chemical Weapons

Convention List schedule I

Chemicals

: Not listed

Chemical Weapons

Convention List schedule II

Chemicals

: Not listed

Chemical Weapons

Convention List schedule III

Chemicals

