



# SAFETY DATA SHEET

Revision Date 02-Apr-2020

Version 1

## 1. IDENTIFICATION

### Product identifier

**Product Name** Marine H2 Hold Epoxy Hardener

### Other means of identification

**Product Code** 84200V

### Recommended use of the chemical and restrictions on use

**Recommended Use** Curing chemical

**Uses advised against** No information available

### Details of the supplier of the safety data sheet

#### Manufacturer Address

ITW Permatex  
6875 Parkland Blvd.  
Solon, Ohio 44139 USA  
Telephone: 1-87-Permatex  
(866) 732-9502

#### May Also Be Distributed by:

ITW Permatex Canada  
101-2360 Bristol Circle  
Oakville, ON Canada L6H 6M5  
Telephone: (800) 924-6994

#### 24-hour emergency phone number

Chem-Tel: 800-255-3924  
International Emergency:  
00+1+ 813-248-0585  
Contract Number: MIS0003453

**E-mail address:** mail@permatex.com

## 2. HAZARDS IDENTIFICATION

### Classification

#### **OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

|                                   |                           |
|-----------------------------------|---------------------------|
| Acute toxicity - Oral             | Category 4                |
| Acute toxicity - Dermal           | Category 4                |
| Skin corrosion/irritation         | Category 1 Sub-category B |
| Serious eye damage/eye irritation | Category 1                |
| Skin sensitization                | Category 1                |
| Reproductive toxicity             | Category 2                |

### Label elements

#### **Emergency Overview**

#### **Signal word**

**Danger**

Harmful if swallowed or in contact with skin  
Causes severe skin burns and eye damage  
May cause an allergic skin reaction  
Suspected of damaging fertility or the unborn child

**Appearance** Amber**Physical state** Viscous liquid**Odor** Amine**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  
 Wash face, hands and any exposed skin thoroughly after handling  
 Do not eat, drink or smoke when using this product  
 Do not breathe dust/fume/gas/mist/vapors/spray  
 Contaminated work clothing should not be allowed out of the workplace  
 Wear protective gloves

**Precautionary Statements - Response**

Specific measures (see .? on this label)  
 Immediately call a POISON CENTER or doctor/physician  
 Specific treatment (see .? on this label)

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
 Immediately call a POISON CENTER or doctor/physician  
 Call a POISON CENTER or doctor/physician if you feel unwell  
 Wash contaminated clothing before reuse  
 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower  
 If skin irritation or rash occurs: Get medical advice/attention  
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Immediately call a POISON CENTER or doctor/physician  
 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell  
 Rinse mouth  
 Do NOT induce vomiting

**Precautionary Statements - Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Not applicable

**Other Information**

Very toxic to aquatic life with long lasting effects. Very toxic to aquatic life.

Unknown acute toxicity                      20 % of the mixture consists of ingredient(s) of unknown toxicity

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name                 | CAS No     | Weight-% |
|-------------------------------|------------|----------|
| TRIETHYLENETETRAMINE          | 112-24-3   | 30 - 60  |
| 4-NONYL-PHENOL                | 84852-15-3 | 15 - 40  |
| 2,4,6-TRIS(DIMETHYLAMINOMETHY | 90-72-2    | 3 - 7    |

L)PHENOL

#### 4. FIRST AID MEASURES

##### Description of first aid measures

|                                           |                                                                                                                                                                                        |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>General advice</b>                     | In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).                                                         |
| <b>Eye contact</b>                        | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. |
| <b>Skin contact</b>                       | IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician immediately.                                               |
| <b>Inhalation</b>                         | IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.                                                |
| <b>Ingestion</b>                          | IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician.                                                                         |
| <b>Self-protection of the first aider</b> | Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.                                                                        |

##### Most important symptoms and effects, both acute and delayed

**Symptoms** See section 2 for more information.

##### Indication of any immediate medical attention and special treatment needed

**Note to physicians** Treat symptomatically.

#### 5. FIRE-FIGHTING MEASURES

##### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>), Use dry chemical, Foam

##### Unsuitable extinguishing media

None

##### Specific hazards arising from the chemical

None in particular.

##### Explosion data

**Sensitivity to Mechanical Impact** None.

**Sensitivity to Static Discharge** None.

##### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

#### 6. ACCIDENTAL RELEASE MEASURES

##### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Ensure adequate ventilation, especially in confined areas. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Use personal protective equipment as required.

##### Environmental precautions

**Environmental precautions** See section 12 for additional ecological information.

#### **Methods and material for containment and cleaning up**

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Use personal protective equipment as required. Dam up. Cover liquid spill with sand, earth or other non-combustible absorbent material. Take up mechanically, placing in appropriate containers for disposal. Clean contaminated surface thoroughly.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

## **7. HANDLING AND STORAGE**

#### **Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapors or mists. Avoid contact with skin, eyes or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse. Use personal protective equipment as required.

#### **Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep in a dry, cool and well-ventilated place. Store locked up.

**Incompatible materials** Contact with nitrates or other oxidizers may cause an explosion, Acids, Sodium hypochlorite, Peroxides

## **8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

#### **Control parameters**

#### **Appropriate engineering controls**

**Engineering Controls** Showers  
Eyewash stations  
Ventilation systems

#### **Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Wear protective natural rubber, nitrile rubber, Neoprene™ or PVC gloves.

**Respiratory protection** Use NIOSH-approved air-purifying respirator with organic vapor cartridge or canister, as appropriate.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing is recommended.

## **9. PHYSICAL AND CHEMICAL PROPERTIES**

#### **9.1. Information on basic physical and chemical properties**

**Physical state** Viscous liquid  
**Appearance** Amber  
**Odor** Amine  
**Odor threshold** No information available

| <b><u>Property</u></b>         | <b><u>Values</u></b>     | <b><u>Remarks • Method</u></b> |
|--------------------------------|--------------------------|--------------------------------|
| pH                             | No information available |                                |
| Melting point / freezing point | No information available |                                |
| Boiling point / boiling range  | No information available |                                |
| Flash point                    | > 200 °C / > 392 °F      |                                |

|                                                    |                          |           |
|----------------------------------------------------|--------------------------|-----------|
| Evaporation rate                                   | No information available | Ether = 1 |
| Flammability (solid, gas)                          | No information available |           |
| Flammability Limit in Air                          |                          |           |
| Upper flammability limit:                          | No information available |           |
| Lower flammability limit:                          | No information available |           |
| Vapor pressure                                     | 0.011 mmHg               |           |
| Vapor density                                      | 5.1                      | Air = 1   |
| Relative density                                   | 0.98                     |           |
| Water solubility                                   | No information available |           |
| Solubility(ies)                                    | No information available |           |
| Partition coefficient                              | No information available |           |
| Autoignition temperature                           | No information available |           |
| Decomposition temperature                          | No information available |           |
| Kinematic viscosity                                | No information available |           |
| Dynamic viscosity                                  | No information available |           |
| Explosive properties                               | No information available |           |
| Oxidizing properties                               | No information available |           |
| <b>Other Information</b>                           |                          |           |
| Softening point                                    | No information available |           |
| Molecular weight                                   | No information available |           |
| Density                                            | No information available |           |
| Bulk density                                       | No information available |           |
| SADT (self-accelerating decomposition temperature) | No information available |           |

## 10. STABILITY AND REACTIVITY

### Reactivity

No information available

### Chemical stability

Stable under normal conditions

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

Excessive heat.

### Incompatible materials

Contact with nitrates or other oxidizers may cause an explosion, Acids, Sodium hypochlorite, Peroxides

### Hazardous Decomposition Products

Carbon oxides  
Nitrogen oxides (NOx)  
Ammonia

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

|                     |                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Irritant and corrosive effects.                                                                    |
| <b>Eye contact</b>  | Corrosive to the eyes and may cause severe damage including blindness.                             |
| <b>Skin contact</b> | Contact causes severe skin irritation and possible burns. May cause sensitization by skin contact. |
| <b>Ingestion</b>    | Can burn mouth, throat, and stomach.                                                               |

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---------------|-----------|-------------|-----------------|
|---------------|-----------|-------------|-----------------|

|                                                      |                      |                         |   |
|------------------------------------------------------|----------------------|-------------------------|---|
| TRIETHYLENETETRAMINE<br>112-24-3                     | = 2500 mg/kg ( Rat ) | = 550 mg/kg ( Rabbit )  | - |
| 4-NONYL-PHENOL<br>84852-15-3                         | = 1300 mg/kg ( Rat ) | = 2000 mg/kg ( Rabbit ) | - |
| 2,4,6-TRIS(DIMETHYLAMINOMET<br>HYL)PHENOL<br>90-72-2 | = 1200 mg/kg ( Rat ) | = 1280 mg/kg ( Rat )    | - |

**Information on toxicological effects**

**Symptoms** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) 1699 mg/kg

ATEmix (dermal) 1385 mg/kg

## 12. ECOLOGICAL INFORMATION

This product contains a chemical which is listed as a marine pollutant according to DOT.

**Ecotoxicity**

0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

**Persistence and degradability**

No information available.

**Bioaccumulation**

No information available.

**Mobility**

No information available.

| Chemical Name                    | Partition coefficient |
|----------------------------------|-----------------------|
| TRIETHYLENETETRAMINE<br>112-24-3 | -1.4                  |

**Other adverse effects**

No information available

## 13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

**Disposal of wastes** Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated packaging** Do not reuse container.

**US EPA Waste Number** D002

## 14. TRANSPORT INFORMATION

**DOT**

**UN/ID No** UN3145  
**Proper shipping name** Alkyl phenols, liquid, n.o.s. (included C2-C12 homologues), Marine Pollutant, Limited Quantity (LQ)  
**Hazard Class** 8  
**Packing Group** II  
**Marine pollutant** This product contains a chemical which is listed as a marine pollutant according to DOT.

**IATA**

**UN/ID No** UN3145  
**Proper shipping name** Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues), Marine Pollutant  
**Hazard Class** 8  
**Packing Group** II  
**ERG Code** 8L

**IMDG**

**UN/ID No** UN3145  
**Proper shipping name** Alkyl phenols, liquid, n.o.s. (including C2-C12 homologues), Marine Pollutant, Limited Quantity (LQ)  
**Hazard Class** 8  
**Packing Group** II  
**EmS-No** F-A, S-B

**15. REGULATORY INFORMATION****International Inventories**

**TSCA** Complies  
**DSL/NDSL** Complies  
**EINECS/ELINCS** Complies  
**ENCS** Complies  
**IECSC** Complies  
**KECL** Complies  
**PICCS** Complies  
**AICS** Complies

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing and Evaluated Chemical Substances  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances

**US Federal Regulations****SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

| Chemical Name               | SARA 313 - Threshold Values % |
|-----------------------------|-------------------------------|
| 4-NONYL-PHENOL - 84852-15-3 | 1.0                           |

**SARA 311/312 Hazard Categories**

**Acute health hazard** Yes  
**Chronic Health Hazard** Yes  
**Fire hazard** No  
**Sudden release of pressure hazard** No  
**Reactive Hazard** No

**CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

**US State Regulations****California Proposition 65**

This product contains the following Proposition 65 chemicals

**U.S. State Right-to-Know Regulations**

| Chemical Name                    | New Jersey | Massachusetts | Pennsylvania |
|----------------------------------|------------|---------------|--------------|
| TRIETHYLENETETRAMINE<br>112-24-3 | X          | X             | X            |

**U.S. EPA Label Information**

**EPA Pesticide Registration Number** Not applicable

**WHMIS Hazard Class**

D2B - Toxic materials

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

|                    |                         |                       |                           |                              |
|--------------------|-------------------------|-----------------------|---------------------------|------------------------------|
| <b><u>NFPA</u></b> | <b>Health hazards</b> 3 | <b>Flammability</b> 1 | <b>Instability</b> 0      | -                            |
| <b><u>HMIS</u></b> | <b>Health hazards</b> 3 | <b>Flammability</b> 1 | <b>Physical hazards</b> 0 | <b>Personal protection</b> B |

NFPA (National Fire Protection Association)

HMIS (Hazardous Material Information System)

**Revision Date** 02-Apr-2020

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**End of Safety Data Sheet**