

# SAFTY DATA SHEET

Last Revision September 5, 2023

## 1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical product name : HERME SEAL 88  
 Company name : NIHON HERMETICS CO.,LTD.  
 Address : 1-29-2 Nishi-gotanda, Shinagawa-ku, Tokyo, 141-0031, Japan  
 Phone number : 03-3492-3677  
 Fax number : 03-3492-3660  
 Intended use : Anticorrosion sealant for water supply and hot water piping  
 Restrictions on use : For business use  
 Reference number : HS-015

## 2.HAZARDS IDENTIFICATION

### GHS Classification

: Flammable liquids	Category 2
Acute toxicity Inhalation: vapour	Category 4
Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity -single exposure	Category 3(Respiratory tract irritation, Narcotic effects)

\* Hazards not stated here are "Not classified" or "Classification not possible".

### GHS label elements

Pictogram or Symbol :



Signal word : Danger

### Hazard statement

: Highly flammable liquid and vapour  
 Harmful if inhaled  
 Causes eye irritation  
 May cause drowsiness dizziness  
 May cause respiratory irritation

### Precautionary statement

#### Prevention

Do not eat, drink or smoke when using this product.  
 Keep away from heat/sparks/open flames/hot surfaces. -No smoking.  
 Use explosion-proof electrical/ventilating/equipment.  
 Take precautionary measures against static discharge.  
 Keep container tightly closed.  
 Use only outdoors or in a well-ventilated area.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Do not breathe dust/mist/vapours.  
 Wash hand thoroughly after handling.

### Response

In case of fire: Use dry chemical powder, carbon dioxide, foam and dry sand for extinction.  
 If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
 If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 If exposed or concerned: Get medical advice/attention.  
 Call a doctor if you feel unwell.

### Storage

- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Disposal
  - Dispose of contents/container in accordance with local regulation.

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### 3.COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization : Mixture

Ingredients and contents :

Component name	CAS Number	Content (Wt %)
Butadiene-styrene copolymer & others	—	55—65
Ethyl acetate	141-78-6	30—40
Titanium dioxide	13463-67-7	<5

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### 4.FIRST-AID MEASURES

#### IF INHALED

- : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call doctor if you feel unwell.

#### IF ON SKIN

- : Remove/Take off immediately all contaminated clothing.
- Rinse skin with water/shower.
- If skin irritation occurs: Get medical advice/attention.
- Wash contaminated clothing before reuse.

#### IF IN EYE

- : Rinse cautiously with water for several minutes.
- Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.

#### IF SWALLOWED

- : Rinse mouth. Do not induce vomiting.
- Immediately call doctor.

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### 5.FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

- : Dry chemical powder, carbon dioxide, foam and dry sand

#### Unsuitable extinguishing media

- : Water jet

#### Specific hazards during fire

- : Highly flammable liquid and vapour
- It is easy to burn extremely, and ignites easily by heat, the spark, and the flame.
- Heating may induce explosion of containers.
- The gas of stimulation, toxicity or the causticity might be generated by a fire.

#### Specific fire-fighting

- : Move removable containers to a safe place if safe to do so.
- Cool unremovable containers and surrounding areas by sprinkling water.
- Fully cool containers with plenty of water even after extinction.

#### Special protective equipment and precautions for fire-fighter

- : Wear chemical protective clothing (heat-resistant) and the proper air respirator when engaged fire-fighting.

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### 6.ACCIDENTAL RELEASE MEASURES

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

- : Restrict the area around the leakage to authorized personnel.
- Stay on the windward side.
- Get away from low place.
- Ventilate before entering tightly closed places.
- Do not touch or walk over the leaked substance.
- Operators wear suitable protective equipment, avoid skin contact and inhalation of gas.

#### Environment precautions

: Avoid release to the environment.

Avoid release to gutters, sewage ditches, or rivers.

Methods and materials for containment and cleaning up

: Promptly remove all ignition sources (no smoking, sparks or fires in the vicinity).

Stop leak if safe to do so.

Use dry sand, soil, or waste cloths to absorb the leaked substance, and collect them in a hermetic container.

Prevent entry into waterways, sewers, basements or confined areas.

## 7. HANDLING AND STORAGE

### Handling

#### Technical measures

: Use explosion-proof electrical/ventilating/equipment.

Use non-sparking tools.

#### Local and general ventilation

: When used in an indoor workplace, install equipment to seal the source or install local exhaust ventilation.

Provide exhaust ventilation to keep the airborne concentration below the exposure limit.

#### Safe handling advice

: Obtain special instructions before use.

Do not handle until safety precautions have been read and understood.

Keep away from heat/sparks/open flames/hot surfaces. -No smoking.

Keep container tightly closed.

Take precautionary measures against static discharge.

Do not breathe dust/mist/vapours.

Wash hand thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

#### Avoidance of contact

: Please refer to section 10.

### Storage

#### Technical measures

: In the storeroom, install the daylighting, lighting, and ventilating equipment needed for storing or handling hazardous substances.

#### Storage conditions

: Keep away from heat/sparks/open flames/hot surfaces and sunlight.

Keep away from oxidizing agents.

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

Keep cool. Store locked up.

#### Safe containers and packaging materials

: Store in original containers.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

	Standard control concentration	Occupational exposure limits	
		Japan society for occupational health	ACGIH
Ethyl acetate	200ppm	200ppm (720mg/m <sup>3</sup> )	TLV-TWA 400ppm
Titanium dioxide	Not established	Not established	TLV-TWA 10 mg/m <sup>3</sup>

### Equipment measures

: Use explosion-proof electrical/ventilating/equipment.

Take precautionary measures against static discharge.

Make available in the work area with emergency shower and eye washer.

When used in an indoor workplace, equipment to seal the source or local exhaust ventilation should be installed.

Provide ventilation to control exposures within the exposure limit.

### Personal protection equipment

Respiratory protection

: Gas masks for organic vapor

Hand protection

: Solvent-proof of protection gloves

Eye protection

: Safety goggles

Skin protection

: Face shield, full-body suit, impervious boots and apron

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: Paste
Color	: Gray
Odor	: Aromatic
Melting point/freezing point	: -84°C (Ethyl acetate)
Boiling point	: 77°C (Ethyl acetate)
Flammability	: Flammable
Explosion limit	: Lower limit: 2.2 (Ethyl acetate) Upper limit: 11.5vol % (Ethyl acetate)
Flash point	: -8.5°C
Auto-ignition temperature	: 427°C (Ethyl acetate)
Decomposition temperature	: No data
pH	: No data
Kinematic Viscosity	: No data
Solubility	: water; 7.9g/100ml (Ethyl acetate)
Vapor pressure	: 10kPa(20°C) (Ethyl acetate)
Specific Gravity (Relative Density)	: 1.4

**10. STABILITY AND REACTIVITY**

Reactivity	: Refer to " Possibility of hazardous reactions ".
Chemical stability	: Stable under normal condition and anticipated storage.
Possibility of hazardous reactions	: Reacting violently with oxidizing agent can cause fire or the explosion. May cause violent combustion or explode when heated.
Conditions to avoid	: Heating, hot temperature Contact with UV ray, strong oxidizing agent, strong alkali. (Ethyl acetate)
Incompatible materials	: Oxidizing agent, strong alkali
Hazardous decomposition products	: Combustion produces carbon monoxide and carbon dioxide.

**11. TOXICOLOGICAL INFORMATION**

Acute toxicity, oral	
: Ethyl acetate (Not classified)	rat LD <sub>50</sub> : >5000mg/kg
Titanium dioxide (Not classified)	rat LD <sub>50</sub> : >10000mg/kg
Acute toxicity, dermal	
: Ethyl acetate (Not classified)	Rabbits: 20 mL/kg (equivalent to 18,000 mg/kg) did not cause death.
Acute toxicity, inhalation; vapour	
: Ethyl acetate (Category 4)	rat LC <sub>50</sub> : 16000ppm (4-hour conversion : 19600ppmV)
Acute toxicity, inhalation; dust	
: Titanium dioxide (Not classified)	rat LC <sub>50</sub> : 6.82mg/L/4H
Skin corrosion/irritation	
: Ethyl acetate (Not classified)	
Titanium dioxide (Not classified)	
Serious eye damage /eye irritation	
: Ethyl acetate (Category 2B)	
Titanium dioxide (Category 2B)	
Respiratory sensitization	
: No data	
Skin sensitization	
: Ethyl acetate (Not classified)	
Germ cell mutagenicity	
: Ethyl acetate (Not classified)	

Carcinogenicity : No data
Reproductive toxicity : No data
Specific target organ toxicity, single exposure : Ethyl acetate(Category 3(Respiratory tract irritation, Narcotic effects))
Specific target organ toxicity, repeated exposure : Ethyl acetate(Not classified)
Aspiration hazard : No data

## 12.ECOLOGICAL INFORMATION

Short-term (acute) hazardous to the aquatic environment : Ethyl acetate(Not classified) Titanium dioxide (Not classified)
Long-term (chronic) hazardous to the aquatic environment : Ethyl acetate(Not classified) Titanium dioxide (Category 4)
Ecotoxicity : Ethyl acetate                      Crustacea Daphnia EC <sub>50</sub> (48H):164 mg/L Titanium dioxide                      Crustacea Daphnia magna EC <sub>50</sub> (48H):>1000000µg/L
Persistence and degradability : Ethyl acetate Not persistently water soluble. (Water solubility = 80000 mg/L) Titanium dioxide No acute toxicity has been reported at concentrations up to aqueous solubility, but it is a metallic compound and its behavior in water is unknown.
Bioaccumulation : No data
Mobility in Soil : No data
Hazardous to the ozone layer : No data

## 13.DISPOSAL CONSIDERATIONS

### Residual waste

- : Dispose of waste material at an approved waste treatment/disposal facility in accordance with applicable local, federal regulations.

### Contaminated containers or packing

- : Remove contents completely before the disposal of empty container.  
Follow all regulation in your country or region.

## 14.TRANSPORT INFORMATION

UN Number	: 1133
Proper Shipping Name	: ADHESIVES, containing flammable liquid
Class	: 3
Packing Group	: II

### Regulations in Japan

Land transport	: Follow the transportation laws and regulations pursuant to the applicable fire laws, occupational safety and Health Act, poison play method.
Maritime transport	: According to ship safety law.
Air transport	: Follow the prescribed air technique.

### Special precautions

- : Confirm that there is no damage to the container or leakage, and load the substance by enforcing preventive measures against load collapse, so as not to cause shock, inversion, fall and damage.

If a hazard such as a large leakage is likely to occur during transportation, take emergency measures for hazard prevention and notify the closest fire department and other related organizations of the matter.

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## 15. REGULATORY INFORMATION

### \* Regulations in Japan

Fire Services Act

: Category IV, class I petroleum (water insoluble liquid) Danger level II

Pollutant Release and Transfer Register (PRTR) Act

: Not applicable

Industrial Safety and Health Act

: Indication substance (Ethyl acetate, Titanium dioxide)

Notification substance (Ethyl acetate, Titanium dioxide)

Dangerous substance (Flammable substance)

Ordinance on the Prevention of Organic Solvent Poisoning (Type II organic solvent)

Ship Safety Act

: Flammable liquids

Civil Aeronautics Act

: Flammable liquids

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## 16. OTHER INFORMATION

This safety data sheet was prepared in accordance with JIS Z 7253:2019.

The information herein is given in good faith, but no warranty, express or implied, is made.

Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and be used in caution.