

SAFTY DATA SHEET

Last Revision April 6, 2020

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
 Reference number : HS-015

2. HAZARDS IDENTIFICATION

GHS Classification

: Flammable liquids	Category 2
Acute toxicity Oral	Not classified
Acute toxicity Dermal	Not classified
Acute toxicity Inhalation ; vapour	Category 4
Skin corrosion/skin irritation	Not classified
Serious eye damage/eye irritation	Category 2B
Skin sensitization	Not classified
Specific target organ toxicity — single exposure	Category 3(Respiratory tract irritation, Narcotic effects)
Hazard to the aquatic environment — acute	Not classified
Hazard to the aquatic environment — chronic	Not classified

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

GHS label elements

Pictogram or Symbol :



Signal word : Danger

Hazard statement

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

Precautionary statement

Prevention

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

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.

Storage

Store locked up.

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

Disposal

Dispose of contents/container in accordance with local regulation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization : Mixture

Ingredients and contents :

Component name	CAS Number	Contents (Wt %)
Copolymer resin & others	—	55–65
Ethyl acetate	141-78-6	30–40
Titanium dioxide	13463-67-7	<5
Silica	7631-86-9	<1

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.

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 irremovable containers and surrounding areas by sprinkling water.
- Fully cool containers with plenty of water even after extinction.

Protection for fire-fighter

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

6 . ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures
- : Guide people away from downwind of the leakage.
 - 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.
- Recovery and neutralization
- : Use dry sand, soil, or waste cloths to absorb the leaked substance, and collect them in a hermetic container.
- Methods and materials for containment and cleaning up
- : Stop leak if safe to do so.
- Preventive measures for secondary accident
- : Keep away from heat/sparks/open flames/hot surfaces. -No smoking.
 - Prevent entry into waterways, sewers, basements or confined areas.
-

7 . HANDLING AND STORAGE

- Handling
- Technical measures
- : Please refer to section 8 equipment measures and personal protection equipment.
- Local and general ventilation
- : Please refer to section 8 local or whole ventilation.
- Safe handling advice
- : Do not handle until safety precautions have been read and understood.
 - Obtain special instructions before use.
 - 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.
 - Use personal protective equipment as required.
 - Wear protective gloves/protective clothing/eye protection/face protection.
 - Do not breathe dust/mist/vapours.
 - Wash hand thoroughly after handling.
- Avoidance of contact
- : Please refer to section 10.
- Storage
- Technical measures
- : Apply the fireproof structure to walls, pillars and floors of the storage room.
 - Use noncombustible material for beams.
 - Use noncombustible material for roofs of the storage room.
 - Cover the roof with sheet metal plates or other light noncombustible materials on the roofs. Do not make ceiling.
 - For floors of the storage room, apply a structure that prevents water influx/infiltration.
 - For floors of the storage room, apply a structure that prevents infiltration of hazardous substances, and make appropriate slopes and cesspools.
 - In the store room, 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.
- Materials to avoid
- : Please refer to section 10.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

	Standard control concentration	Occupational exposure limits	
		Japan society for occupational health	ACGIH
Ethyl acetate	200ppm	200ppm (720mg/m ³)	TLV-TWA 400ppm
Titanium dioxide	Not established	Not established	TLV-TWA 10 mg/m ³
Silica	Not established	Dusts; Class 3 Respirable dust 2 mg/m ³ Total dust 8 mg/m ³	TLV-TWA 10 mg/m ³

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.
- 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

- Appearance : Gray paste
- Odor : Aromatic
- pH : No data
- Melting point/freezing point : -84°C (Ethyl acetate)
- Boiling point : 77°C (Ethyl acetate)
- Flash point : -8.5°C
- Explosion limit : Lower limit; 2.2 vol% (Ethyl acetate)
Upper limit; 11.5 vol% (Ethyl acetate)
- Vapor pressure : 10kPa (20°C) (Ethyl acetate)
- Vapor density : 3.0 (Ethyl acetate)
- Relative density : 1.4
- Solubility : Water ; 7.9g/100ml (Ethyl acetate)
- Auto-ignition temperature : 427°C (Ethyl acetate)
- Decomposition temperature : No data

10. STABILITY AND REACTIVITY**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)

Materials to avoid

- : Oxidizing agent, strong alkali

Hazardous decomposition products

- : Carbon monoxide, formaldehyde

11. TOXICOLOGICAL INFORMATION

Acute toxicity, oral	
: Ethyl acetate(Not classified)	rat LD ₅₀ : >5000mg/kg
: Titanium dioxide (Not classified)	rat LD ₅₀ : >10000mg/kg
: Silica (Not classified)	rat LD ₅₀ : 31600 mg/kg
Acute toxicity, dermal	
: Ethyl acetate(Not classified)	
Acute toxicity, inhalation ; vapour	
: Ethyl acetate(Not classified)	rat LC ₅₀ : 16000ppm/8H(57.6mg/L/8H)
Acute toxicity, inhalation ; dust	
: Titanium dioxide (Not classified)	rat LC ₅₀ : 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)	
Sensitization, respiratory	
: No data	
Sensitization, skin	
: Ethyl acetate(Not classified)	
Germ cell mutagenicity	
: Ethyl acetate(Not classified)	
: Titanium dioxide (Not classified)	
Carcinogenicity	
: No data	
Reproductive toxicity	
: No data	
Specific target organ toxicity, single exposure	
: Ethyl acetate(Category 3(Respiratory tract irritation, Narcotic effects))	
: Titanium dioxide (Category 3(Respiratory tract irritation))	
Specific target organ toxicity, repeated exposure	
: Titanium dioxide(Category 1(Lung))	
Aspiration hazard	
: No data	

12. ECOLOGICAL INFORMATION

Hazardous to the aquatic environment, acute hazard	
: Ethyl acetate(Not classified)	Crustacea Daphnia EC ₅₀ (48H) : 164 mg/L
: Titanium dioxide (Not classified)	Crustacea Daphnia magna EC ₅₀ (48H) : > 1000000µg/L
Hazardous to the aquatic environment, long-term hazard	
: Ethyl acetate(Not classified)	
: Titanium dioxide (Category 4)	

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

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.
- Do not transport the substance with food or feed.

15. REGULATORY INFORMATION

• IN JAPAN

Fire Services Act
 : Category 4, class 1 petroleum (water insoluble liquid)

Pollutant Release and Transfer Register (PRTR),
 : Not applicable

Industrial Safety and Health Law
 : Indication substance (Ethyl acetate, Silica, Titanium dioxide)
 Notification substance (Ethyl acetate, Silica, Titanium dioxide)
 Dangerous substance (Flammable substance)
 Ordinance on the Prevention of Organic Solvent Poisoning (Type II organic solvent)

Ship safety law
 : Flammable liquids

Aviation law
 : Flammable liquids

16. OTHER INFORMATION

This safety data sheet was prepared in accordance with JIS Z 7253:2012.
 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.