

Material Safety Data Sheet (SDS)  
[For mixture (for paint)]

1. Product and company information

Product name : HYDRO THERMO Color:HT001(white)  
Company name : Hoei sangyou Co.,Ltd.  
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2. Summary of hazard

[ GHS classification ]

Physical hazards

Flammable liquids :No classification

Hazard to health

Acute toxicity (oral) :No classification  
Acute toxicity (Dermal) :No classification  
Acute toxicity (inhalation:gas) :No classification  
Acute toxicity (inhalation:vapor) :Classification not possible  
Acute toxicity (inhalation:dust/mist) :Classification not possible  
Skin corrosion / irritation :Category 3  
Serious eye damage / eye irritation :Classification not possible  
Respiratory sensitization :Classification not possible  
Skin sensitization :Classification not possible  
Germ cell mutagenicity :Classification not possible  
Carcinogenicity :Category 2  
Reproductive toxicity :Classification not possible  
Specific target organs toxicity(single exposure) :Category 1  
Specific target organs toxicity(Repeated exposure) :Category 1  
Aspiration hazard :Classification not possible

Environmental hazard

Aquatic environment toxicity: acute :Classification not possible  
Aquatic environment toxicity: chronic :Classification not possible  
Hazardous to the ozone layer :Classification not possible

Environmental hazard

[GHS label elements]

Signal ward : Dangerous



[Hazardous information]

:Mild skin irritation.  
:Suspected of causing cancer.  
:May cause damage to organ .  
:May cause damage to organ and through prolonged or repeated exposure.  
(The heart, the liver, the respiratory system.)

Instruction

[Precaution]

:In the handling workspace, please provide a local exhaust system with no flames.  
:Ventilation is good while handling, so as not to inhale steam, necessary

please respond accordingly to mask for organic gas or as mask for gas supply.  
 :Protective eyeglasses, protective gloves, long sleeve work clothes so as not to touch the eyes and the skin please wear it.  
 :After handling , please wash your hands and gargle thoroughly

[First aid measures]

:In case of fire, please use carbon dioxide gas, foam or powdered fire extinguisher.  
 :In case of contact with eyes, wash with plenty of water for at least 15 minutes, promptly doctor's diagnosis please receive.  
 :If you feel bad by inhaling steam , gas etc., clean air please rest at the place and receive a doctor's diagnosis if necessary.  
 :If it adheres to the skin, wash it off with soapy water, it will cause pain or appearance when there is a change, please consult a doctor promptly.  
 :In case of accidental swallowing, get medical attention immediately.

[Storage]

:Keep locked and stored.

[Leakage]

:If spilling from the containers wipe it off with sand, cloth or the like, please collect it in a container filled with water.

[Disposal]

:Contents and containers, specialized waste received permission from the prefectural governor please consign it to a processing company.

3. Composition / information on ingredients

Distinction between chemical substance and mixtures : Mixture

Chemical name or general name

ingredients	CAS.No	Content (wt%)	Safety law
Acrylic silicon resin		20~25	
Titanium dioxide	13463-67-7	15~20	No. 191
Dipropylene glycol mono methyl ether	34590-94-8	2~3	No. 601
Additives		<6	
Micro capsule		1~5	
Calcium carbonate	471-34-1	5~10	
Propylene glycol	57-55-6	1~2	
Amorphous silica	7631-86-9	<1.0	
Water		35~40	

4. First aid measures

After inhalation

: Inhale steam, gas etc., and if you feel sick immediately transfer to a fresh place of freshness, endeavor to rest and keep warm, medical attention promptly.

After skin contact

: Remove adhered clothes and shoes, while flowing water or cool water while adhering parts wash.

: Rinse thoroughly with plenty of water and soap or skin

After eye contact

: Immediately remove all contaminated clothing.

Immediately wash with plenty of clean running water for at least 15 minutes.

Remove contact lens when worn and can be removed easily.

Wash thoroughly to the back of the eyelids.

After swallowing

: In case of accidental swallowing, wash the inside of the mouth with water, rest set up SDS immediately present and submit a doctor's diagnosis.

Protection of first-aiders

: Wear appropriate protective equipment (protective glasses, protective masks, gloves, etc.) according to the situation.

## 5. Fire - fighting measures

### Extinguishing media

:Water , carbon dioxide , foam , chemical powder , dry sand

### Unsuitable extinguishing media

:Straight stream may spread a fire.

### Specific fire extinguishing method

:For initial fire, powder ,carbon dioxide , etc. are used.

:In case of a large-scale fire , it is necessary to shut off the air using a foam etc.

It is valid, in the case of a surrounding fire cool the surrounding equipment by spraying water.

Transfer the movable container to a safe place in a prompt manner.

### Protection of firefighter

:When extinguishing fire, wear air respirator, chemical protective clothing.

## 6. Accidental release measures

### Personal precautions.

### Protective equipment and emergency procedures.

:In the case of indoors, ventilate thoroughly until treatment is completed.

:Approach outside stakeholders by stretching a rope around the leaky place Ban.

:When handling the work, use protective equipment.

(rubber gloves, protective eyeglasses, breathing protection, etc.)

Do not wear and adhere to the skin or inhales gas / vapor.

:Work from the windward side and evacuate people leaning downwind.

:Prepare fire extinguishing equipment in case of ignition.

:In case of large amount, people are safely withdrawn.

### Environmental precautions

:Be careful not to let spills enter the river etc.

In case of flowing into a river or the like, contact the fire department, river management department, waterworks bureau, public health center, agricultural cooperative, fishery cooperative etc as necessary.

:Appropriate measure such as reporting to the surrounding residents that a leak has occurred due to the occurrence of a bad smell etc.

### Recovery

:In case of small amount, wipe with dry sand, sawdust, cloth etc, and collect it in a sealable container. Discard it later.

:In case of a large amount , stop the flow path with blankets, sandbags, etc., and collect with a vacuum.

### Containment and purification methods equipment

:Stop leak if it is not dangerous.

:All equipment used when handling spills is grounded.

### Measures to prevent secondary disasters

:Remove nearby waste fire sources promptly, prepare fire extinguishers for ignition.

## 7. Handling and Storage

### Precaution for handling

:Provide ventilation and wear protectors.

Avoid exposing by supplying an appropriate protection tool and ventilator.

Keep container tightly closed.

Wear protect equipment while the work, avoid eye , skin , and clothing contact.

Wash hand , face and well gargle after handling.

### Precaution for storage

:Avoid freezing, direct sunlight, keep in a well-ventilated place.

Avoid overturn, fall-down.

## 8. Exposure controls and personal protection

Adopted value ,Control value		:Not established	(Titanium dioxide)
Japan Society for Occupational Health		:Titanium dioxide	
Inhalant dust	1 mg/m <sup>3</sup>	Total dust	4 mg/m <sup>3</sup> (2009)
ACGIH	:Titanium dioxide	TWA	10 mg/m <sup>3</sup> (2009)
	:Dipropyleneglycol	TWA	100PPM Skin
	mono methyl ether	STEL	150PPM Skin

### Equipment measures

- :Use designated explosion-proof electricity, ventilation and lighting equipment.
- :Take precautionary measures against electrostatic discharge.
- :Ventilate for exhaust to keep airborne concentrations below exposure limits.
- :When mist occurs in the process at high temperature handling, control the air pollutant to the controlled concentration install a ventilator to keep it below.
- :Do not handle unless sealed equipment, equipment or local exhaust is used.  
In order to keep the air concentration below the recommended management concentration below, it is necessary to seal the process.  
use other equipment countermeasures.
- :Store facial cleanser and safety shower in workspaces where this material is not stored and handled.

### Protective equipment

#### Respiratory protection

- :Wear respiratory protective equipment (gas mask for organic gas, air line mask)

#### Hand protection.

- :Wear oil resistant protective gloves.

#### Eye protection

- :Wear safety glasses ( ordinary glasses type, ordinary glasses type with side plate , goggle type).

#### Skin and body protection

- :Wear protective clothing (antistatic type) and protective shoes (antistatic type)

## 9. Physical and chemical properties

Shape	: Liquid
Color	: White
Odor	: Slightly acrylic odor
pH value	: 7~8
Boiling point	: 100 °C (boiling point )
Meltig point • Freezing point	: No date
Flash point	: No date
Explosive range	: No date
Vapor pressure	: No date
Density	: 1.1 ± 0.1
Solubility	: Soluble in water
Auto ignition temperature	: No date
Decomposition temperature	: No date
Odor threshold	: No date
Others	

## 10. Stability and Reactivity

Chemical stability	:Stable in the air at the normal temperature.
Incompatible materials	:No information
Reactivity	:Non-inflammable, CO, Nox gas occurs with combustion.
Other hazardous information	:Avoid leaving cloth, paper, brush or roller which contains the paint, or its dust to accumulate or to be made round.

11. Toxicological information

	Accute toxicity Oral	Dermal	Inhalation (vapour)	Inhalation (mist)
Titanium dioxide	LD50>5000mg/Kg (Estimated value)	LD50>5000mg/Kg (Estimated value)		LC50>50mg/L
Di propylene glycol mono methyl ether	LD50=5230 mg/Kg Rat Not classified	LD50=9500mg/Kg Rabbits (SIDS<2001) Not classified	LC50=661ppm Rat (SIDS, 2001)  Classification not possible	

	Skin corrosion / irritation	serious eye damage / eye irritation	Respiratory sensitization	Skin sensitization
Titanium dioxide	Category 3	Classification not possible	Classification not possible	Not applicable
Di propylene glycol mono methyl ether	No classification	Category 2B	Classification not possible	No classification

	Germ cell mutagenicity	Carcinogenicity	Reproductive toxicity
Titanium dioxide	Classification not possible	Category 2	Not applicable
Di propylene glycol mono methyl ether	Classification not possible	Classification not possible	Not enough information Classification not possible

	Cpecific target organ toxicity Single exposure	Cpecific target organ toxicity Repeated exposure	Aspiration hazard
Titanium dioxide	Category 1	Category 1	Classification not possible
Di propylene glycol mono methyl ether	Category 3 Respiratory tract irritation	Not classified	Classification not possible

12. Ecological information

- Avoid entering the river, ground, drainer or affecting to the environment.

	Hazardous to the environment aquatic (acute hazard)	Hazardous to the environment aquatic (Long-term hazard)	Hazardous to the Ozone Layer
Titanium dioxide	Not applicable	Category 4	Classification not possible
Di propylene glycol mono methyl ether	EC50=100mg/L Exceeds (Acute toxicity test) Not classified	No poor solubility (Acute toxicity test) Not classified	Classification not possible

	Eco-toxicity	Persistence and degradability	Bioaccumulative potential	Mobility in soil
Titanium dioxide	No information	No information	No information	No information
Di propylene glycol mono methyl ether	No data available	No data available	No data available	No data available

13. Disposal considerations

Residual waste

:When incinerating, observe relevant laws and regulations.  
In the case of disposal, collection and transporters of industrial waste

received permission of the prefectural governor contract with the disposal company, the waste disposal law (waste disposal and cleaning law) and comply with relevant laws and regulations and properly process it.

Contaminated containers and packaging

:In case of discarding empty contaminated containers / packages, after completely removing the contents the prefectural governor .  
We contracted with industrial waste collection / transportation companies and disposal companies that received permission of the Waste Disposal Act (Waste Disposal and Public Cleansing Law) and regulation and laws and regulations properly.

14. Transport information

International regulation

UN number : Not applicable  
UN Class : Not applicable  
Container grade : Not applicable

Rail and road transportation information

:Refer to applicable law and regulation.

Marine transportation information

:Refer to applicable law and regulation.

Aviation transportation information

:Refer to applicable law and regulation.

Special safety measures

:When transporting, make sure that the container does not leak, to prevent falling, or damage ensure prevention of loading and collapse of load.

It is necessary to hold the yellow card when transporting.

Do not transport with food and feed.

15. Regulatory information

Industrial Safety and Health Act

:Harmful substance to be notified of name etc.

(Article 57-2 of the law, appended table 9 of Article 18-2 of the enforcement ordinance)

No. 191 Titanium dioxide

No. 601 1-(2methoxy2methylethoxy)2-puropanol (40~50%)

(Contained in Dipropylene glycol mono methyl ether.)

Propylene glycol Regulation appended table 2-1786

(Apr/1/2025 enforcement)

Fire Service Act

:Not applicable

Pollutant Release and Transfer

:Not applicable

Register Law ( PRTR Law )

Poisonous and Deleterious

:Not applicable

Substances Control Act

16. Other information (cited documents, etc.)

References cited

:Raw material data sheet (Japan Manufacturing Paint Association)

MSDS guide book (for paint) (Japan Manufacturing Paint Association)

Hadardous substance data book (Maruzen publishing)

GHS classification result database. (National Insutitute of Technology and Evaluation)

This information herein is given in good faith in accordance with the data in a variety of technical publication.

It is the use's responsibility to determine the suitability of this information for the adoption of necessary safety precautions.

In addition, the information listed here is made based on the latest information by our investigation at the time of creation, but please understand that revision is possible by amendment of laws, regulations or the announcement of new toxicity test result.