

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

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1. Product and company information

Product name : Hydrophric clear coat
Company name : Hoei sangyou Co.,Ltd.
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2. Summary of hazard

[GHS classification]

Physicochemical hazard

Flammable liquid :Not subject to classification

Hazard to health

Acute toxicity (oral) :Not classified

Acute toxicity (dermal) :Not classified

Acute toxicity (inhalation:gas) :Not subject to classification

Acute toxicity (inhalation:vapor) :Not classified

Acute toxicity (inhalation:dust/mist) :Not classified

Skin corrosion / irritation :Not classified

Serious eye damage / eye irritation :Category 2

Skin sensitization :Classification not possible

Respiratory sensitization :Classification not possible

Germ cell mutagenicity :Classification not possible

Carcinogenicity :Category 1

Reproductive toxicity :Category 1

Specific target organs /systemic toxicity
(single exposure) :Category 3

Specific target organs /systemic toxicity
(repeated exposure) :Category 1

Aspiration hazard category :Classification not possible

Environmental hazard

Aquatic environment chronic hazard :Not classified

Aquatic environment acute harmfulness :Not classified

Hazard to the ozone layer :Classification not possible

[GHS label element]

Signal ward : dangerous



[Hazard information]

:Severe eye irritation.

:May cause cancer.

:There is a fear of adverse effecton fertility or the unborn child.

:May cause respiratory irritation and drowsiness or dizziness.

:May cause damage to organ and through prolonged or repeated exposure.

(Theliver,nervous system, the respiratory system.)

Precautionary note

[Safety measure]

: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]

:In case of fire, please use carbon dioxide gas, form 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 adheresto the skin, wash it off with soapy water, it will cause pain or
 appearance when there is a chage, please consult a doctor promptly.
 :In case of accidental swallowing, get medical attention immediately.

[Storage]

:Keep locked and stored.

[Leakage]

:If spilling from the containerswipe 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
 perfectural governor please consign it to a processing company.

3. Composition and ingredient information

Distinction between chemical substance and mixtures

: blend

Chemical name or common name

: Colloidal silica

component	CAS. No	Content (wt%)	Safety law
Amorphous silica	7631-86-9	3 ~ 4	No. 165-2
Water soluble of polymer		< 1	
water		9 0 ~ 9 5	
Ethanol	64-17-5	1 ~ 2	No. 61
Others		< 1	

4. First aid measures

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.

When adhering to the skin

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

:Rinse thoroughly with plenty of water and soap or skin

Eye contact

:Immediately remove all contaminatedclothing.

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

Remove contact lense when worm and can be removed easily.

Wash throughly to the back of the eyelids.

When swallowed

:In case of accidentalswallowing, 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 pritective equipment (protective glasses, protective masks, gloves, etc.)
 according to the situation.

Special remarks to doctor

:No information.

5. Treatment in case of fire

Available extinguishants

:Powderextinguishants, foam for water soluble liqi[uids, fire-resistant chemicals for carbon dioxide, small chemicals, sand , misty water.

Extinguishing agent not to be used

:Stick-like water can be dangerous by expanding the 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. Measures against leakage

Note on human body

Protective equipment and emergency measures

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

:Approach outsidestakeholders 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.

Enviromental precautions

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

In case of flowing into a river or the like, cotact 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 abad 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 promptl, prepare fire extinguishers for ignition.

7. Handling and Sorage Precautions Handling

Technical measurers

:Follow the coutermeasures described in 「8, Exposure prevention and protection measures」 and wear protective gear.

Local exhaust / general ventilation

:Perfom local exhaust and general ventilation described in 「8, Exposure prevention and protection measures」 .

:Ventilation the workspace thoroughly.

:Wear suitable protective equipment such as protective eyeglasses and protective gloves.

:For work that generates spray mist or steam, install a local exaust ventilator or wear a protective mask with a filter.

:After handling, wash hands, face etc , well and gargle.

Hygiene measures

:Wash hands with soap after handling.

Storage

Technical measurers

:The storage place is made of refractory structure for walls, pillars and floor, and make the beams from incombustible materials.

:Wipe the roof with incombustible material, wipe with metal plate or other lightweight nonflammable material, and do not set the ceiling.

:The floor of the storage place shall be constructed so that water will not enter or penetrate the floor surface.

:The of the storage place shall be structured so that dangerous goods will not permeate, with appropriate inclination and appropriate sanator (warming up) shall be provided.

:Set up facilities for daylighting, lighting and ventilation necessary for handling at storage location.

Storage conditions

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

:The storage temperature should not be below 5°C or above 40°C.

:After use, for skinning, to prevent putrefaction, use sealedly and promptly.

Incompatible dangerous substances

:See 「10, stability and reactivity」 .

Safe container Packing material

:Use container stipulated by the Fire service Law and the UN Hazardous Material Transport Regulation.

8. Exposure prevention and protection measures

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.

On Amorphous silica

Controlled Concentration

:Not set

Allowable exposure limit

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 , goggles type).

Skin and body protection

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

Hygiene measure

:Wash hands thoroughly after handling.

9. Physical and chemical property	
Physical plate, shape, color etc.	:Slightly cloudy liquid
Odor	:Most odorless
pH value	:9.4
Meltig point / Freezing point	:0 °C (melting point)
Boiling point, initial boiling point	:100 °C (boiling point)
Flash point	:No date
Explosive range	:No date
Vapor pressure	:No date
Vapor dencity	:No date
Specific gravity	:1.00 ± 0.05 (25 °C)
Solubility	:Infinitely dilutable with water
Octanol / water partition coefficient	:No date
Spontaneous ignition temperature	:No date
Decomposition temperature	:No date
Nonvolatile content	:6 ± 1 %
Evaporation rate	:No date
Flammability (solid, gas)	:Not applicable
Viscosity	:10~20 mPa.s (BH type Viscometer)

10. Stability and Reactivity

Stability	: In a sealed state, it s stable in a cool dark place.
Hazardous reaction possibility condition to avoid	:No information.
Incompatible hazardous subsutance	:No information.
Hazardous decomposition products	:Unexpected harmful decomposition products.

11. Hazard information

Amorphous silica hazard information

Acute toxicity	Oral	:Rat LD50 = 3160 mg / Kg
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Carcinogenicity

IARC 3	:Carcinogenicity can not be classified to human.
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12. Enviromental impact information

Ecotoxicity	:No information.
Harmfull to the ozone layer	:No date

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. Shipping Precautions

International regulation

UN number : Not applicable

United Nations Classification : Not applicable

Container grade : Not applicable

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. Applicable law

Fire Service Act : Not applicable

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)
Silica No.165-2, Ethanol No.61

Law Concerning Pollutant Release and
Transfer Register (PRTR Law) : Not applicable

Poisonous and Deleterious Substances
Control Act : Not applicable

16. Other information (cited documents, etc.)

This document describes product safety information.

In the case of please refer to technical documents, specification etc for various requirements on quality.

For details on protective equipment, please contact the Japan Safety Appliances Association. (TEL : 03-5804-3125)

References

:International Chemical Safety Cards. (ICSC)

Registry of Toxic Effects of Chemical Substances. (RTECS)

Working environment evaluation criteria.

Journal of the Japan Society for Occupational Health.

2001 TLVs and BELs (ACGIH)

The Code of Federal Regulations. (OSHA)

IARC Monographs on the Evaluation of Carcinogenic Risk to Humans. (IARC)

List of regulated substances. (Nippon Chemical Database)

Chemical database. (Nippon Chemical Database)

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

CHEMGOLD2 (ChemWatch)

The contents of the description are the materials, information.

It is based on data and it may be revised by new findings.

Also, the notes are for ordinary handling.

When special handling is done.

Please use safety measures suitable for usage.