

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

1. Product and company information

Product name : OPTIMUS (C3 Hardener  
Company name : Hoei sangyou Co.,Ltd.  
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2. Summary of hazard

[ GHS classification ]

Physical hazards

Flammable liquid :Not classified

Health hazards

Acute toxicity (oral) :Not classified  
Acute toxicity (dermal) :Category4  
Acute toxicity (inhalation:vapor) :Category3  
Acute toxicity (inhalation:dust/mist) :Classification not possible  
Skin corrosion / irritation :Not classified  
Serious eye damage / eye irritation :Not classified  
Respiratory sensitization :Classification not possible  
Skin sensitization :Category1  
Germ cell mutagenicity :Not classified  
Carcinogenicity :Not classified  
Reproductive toxicity :Not classified  
Specific target organs /systemic toxicity (single exposure) :Not classified  
Specific target organs /systemic toxicity (repeated exposure) :Not classified  
Aspiration hazard category :Classification not possible

Environmental hazard

Aquatic environment chronic hazard :Not classified  
Aquatic environment acute harmfulness :Not classified  
Hazardous to the ozone layer :Classification not possible

[GHS label elements]

Signal ward : Danger



[Hazardous information]

:Harmful in contact with skin.  
:Harmful if inhaled.  
:May cause an allergic skin reaction.

Instruction

[Precaution]

:Obtain special instruction before use.  
:Do not handle until all safety precaution have been read and understood.  
:Keep container tightly closed.  
:When spraying and drying, provide ventilation.  
:Avoid breathing mist, vapours, spray.  
:Do not eat, drink or smoke when using this product.

- :Wear protective gloves ,eye protection ,face protection when using this product.
- :Wash hands and eyes thoroughly after handling.
- :If on skin,Take off immediately all contaminated clothing,rinse skin water.
- :Avoid release to the enviromennt.

[First aid measures]

Eye contact

- :Remove contact lenses if present and easy to do, continue rinsing.
- Get medical attention.

Ingestion

- :Rinse mouth with water . Get medical attention. Do not induce vomiting.

Skin contact

- :Remove all contaminated clothing and shoes immediately.
- Rinse skin with plenty of water and wash soap.
- If you feel skin abnormality such as itching or pain, get medical attention.

Inhalation

- :Remove victim to fresh air and keep at rest.

[Storage]

- :Keep away from heat and sunlight, avoid freezing.
- Store in a dry and well-ventilated location ,locked up.

[Disposal]

- :Contents and containers, specialized waste received permission from the perfectural 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 :Water base architectural paint.

ingredients	CAS.No	Content (wt%)	CSCL	Safety law
Modified polyisocyanate		75~85		
2-(2Ethoxyethoxy)ethylacetate	112-15-2	25~25	2-744	
n-butyl acrylate	14132-2	<1	2-989	No. 4

### 4. First aid measures

After eye contact

- :Immediately wash with plenty of clean running water for at least 15 minutes.
- Remove contact lense when worn and can be removed easily.
- Wash throughly to the back of the eyelids.
- Get medical attention immediately.

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.
- :Do not induce vomiting. Do not swallow vomiting.

After skin contact

- :Remove adhered clothesand shoes, while flowing water or cool water while adhering parts wash.
- :Rinse thoroughly with plenty of water and soap or skin
- :If you feel skin abnormality such as itching or pain, get medical attention, SDS present.

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.
- :Remove person to fresh air and keep comfortable for breathing.
- Call a doctor if you feel unwell.

Protection of first-aiders

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

## 5. Fire - fighting measures

### Extinguishing media

:Carbon dioxide , foam , chemical powder , dry sand ,water spray

### 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.

:Rope off the spilled area to prohibit the entrance of unauthorized personnel.

:Wear proper protective equipment during recovery operation.

:Do not collect spillage at the leeward.

### Environmental precautions

:Do not permeate the spills into soil.

:Do not flow it into sewers, river or drains etc.

### Recovery

:For small spills, absorb spills with paper towels or waste cloths, etc, then put them into closed containers.

:For large spills stop leakage with dike of earth and sand, cover the surface of liquid with foam. Then absorb spills with dry sand or non-flammable absorbent and put them into closed containers.

## 7. Handling and Storage

### Precaution for handling

:Provide ventilation and wear protecters.

Avoid breathing vapours or contact with skin as much as possible

If there is arisk exposure, wear appropriate protective equ.ipment

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

:Keep away from heat and sunlight.Store in a dry and well-ventilated location.

:Keep away from incompatible materials.

:Keep container tightly closed. Storage place should be kept away from flames.

:Store in hazardous materials facilities and locked up.

## 8. Exposure controls and personal protection

### Appropriate engineering controls

:Seal entire facility, eqipment or install a local exhaust ventilation.

Install eye washer and shower near work arear.

### Occupational Exposure Limits

:No information.

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 , goggletype).

Skin and body protection

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

## 9. Physical and chemical properties

Appearance	: Clear liquid
Odor	: Peculiar odor
pH value	: -
Flash point	: 130°C (Cleveland open-cup)
Explosive range	: No data
Density	: 1.1
Solubility	: React vigorously with water.
Viscosity	: 200~500 mPa.s (BH type viscometer)
Others	:

## 10. Stability and Reactivity

Chemical stability	:Stable under normal handling conditions.
Reactivity	:Toxic gases(CO, Nox ,etc)may be generated by combustion.

## 11. Toxicological information

Acute toxicity (oral)	:Insufficient data for GHS classification.
Acute toxicity (dermal)	:1000<Calculated value(ATEmix) ≤2000 (mg/kg)
Acute toxicity (inhalation)	:500<Calculated value(ATEmix) ≤2500 (ppmV)
Skin sensitization	:Contain a category 1A component above 0.1%.

## 12. Ecological Information

Bioaccumulativepotential	:No information.
Mobility in soil	:No information.
Persistence and degradability	:No information.

## 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

Handle in accordance with the description of 「7 HANDLING AND STORAGE」 .  
Check containers damage , leakage and tightness of taps.  
Load containers carefully to avoid shock ,falling , dropping and damage.  
Perform prevention of collapse of cargo surely.  
Observe strictly transportation related laws and regulations.

### International regulation

UN number : 2810  
UN Class : 6.1 (Poison)  
Packing group : III

### Domestic regulation

Rail and road transportation information :Refer to applicable law and regulation.  
Marine transportation information :Refer to applicable law and regulation.

## 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)  
:Not applicable  
Poisonous and Deleterious :Not applicable  
Fire Service Act :Not applicable  
Foreign Exchange and :Export Trade Control Order ; Applicable  
Foreign Trade Law  
Law concerning Pollutant Release :Not applicable  
and Transfer Register

## 16. Other information

### References cited

:Raw material data sheet (Japan Manufacturing Paint Association)  
MSDS guide book (for paint) (Japan Manufacturing Paint Association)  
Hazardous substance data book (Maruzen publishing)  
GHS classification result database. (National Institute 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 user'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.