

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

1. Product and company information

Product name : CMS primer For prepainted galvanized steel sheet.
Company name : Hoei sangyou Co., Ltd.
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Department in charge : Engineering department
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2. Hazards identification

[GHS classification]

Physical hazards

Flammable liquids :No classification

Health hazards

Acute toxicity (oral) :No classification

Acute toxicity (Dermal) :No classification

Acute toxicity (inhalation:gas) :No classification

Acute toxicity (inhalation:vapor) :No classification

Acute toxicity (inhalation:dust/mist) :Classification not possible

Skin corrosion / irritation :No classification

Serious eye damage / eye irritation :Category 2

Respiratory sensitization :No classification

Skin sensitization :No classification

Germ cell mutagenicity :Category 1

Carcinogenicity :Category 2

Reproductive toxicity :Category 1

Specific target organs toxicity(single exposure) :Classification not possible

Specific target organs toxicity(Repeated exposure) :Category 2

Aspiration hazard :Classification not possible

Environmental hazard

Aquatic environmental toxicity : acute :No classification

Aquatic environmental toxicity : chronic :No classification

Hazardous to the Ozone Layer :Classification not possible

[GHS label elements]

Signal ward : Dangerous



[Hazardous information]

:Causes serious eye irritation.

:Suspected of causing genetic defect.

:Suspected of causing cancer.

:May damage fertility or the unborn child.

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

(The liver, the kidneys.)

Instructions

[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, 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 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 perfectural governor please consign it to a processing company.

3. Composition / information on ingredients

Distinction between chemical substance and mixturres

: Mixture

Chemical name or general name

: Acrylate ester copolymer emulsion

ingredients	CAS.No	Content (wt%)	Safety law
Acrylate ester copolymer		20~25	
Ethanol	64-17-5	2~3	No. 61
Additives		5~10	
3chloro 1,2propanediol	96-24-2	<0.5	
1,3dichloro 2propanol	96-23-1	<0.3	
Water		70~75	

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 clothesand 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 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.

After swallowing

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

A brief description of the most important symptom

Protection of first-aiders

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

A brief description of the most important symptoms and effects

:No information

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 unnecessary.

: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

Technical measures

:Refer to 「Sect., 8 Exposure controls/ personal protection」

Local exhaust or general ventilation

:Refer to 「Sect., 8 Exposure controls/ personal protection」

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.

Hygiene measures

:Wash with water and soap after handling.

Storage conditions

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

Avoid overturn, fall-down.

Keep container tightly closed.

Keep the temperature of the degree of 5~40.

Hazardous decomposition products

:Refer to 「Sect., 10 Stability and reactivity」

8. Exposure controls and personal protection

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.

Control value

:Not established

Adopted value

Japan Society For Occupational Health
Recommendation value (2005)
ACGIH recommendation value (2005)

:Not established

:TLV-TWA 1000ppm (Ethanol)

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)

Hygiene measures

- :Wash hands thoroughly after handling.

9. Physical and chemical properties

Physical state, shape, color etc.	:Slightly yellow muddy liquid
Odor	:Slightly irritating odor
pH value	:4~6
Meltig point • Freezing point	:0 °C (meltig point)
Boiling point	:100 °C (boiling point)
Explosive range	:No date
Vapor pressure	:No date
Vapor dencity	:No date
Specific gravity	:1.0~1.1 (20 °C)
Solubility	:Soluble in water
n-octanol/water (log value)	:No date
Auto-ignition temperature	:No date

Resolution temperature	:No date
Vapor threshold	:No date
Evapolation rate	:No date
Flammability(solid, gas)	:Not applicable
Viscosity	:100~150 mPa • s

10. Stability and Reactivity

Stability	:Stable in the air at the normal temperature.
Reactivity	:Non-inflammable, CO, Nox gas occurs with combustion.
Conditions to avoid	:Low temperature (Below 5 °C) High temperature (Over 40 °C)
Incompatible materials	:No information
Hazardous decomposition products	:No information

11. Toxicological information

	Acute toxicity oral	dermal	vapour	dust, mist
Ethanol	LD50=7000~11000mg/kg (DIDS) Rat	LDL ₀ =20000mg/kg (SIDS) Rabbit	LC50=63000ppmV (4Hr) (DFGMAK)	
3-chloro 1,2 propane diol	LD50=26.55~300 mg/kg (IUCLID) Rat	LD50=1057mg/kg Rat LD50=800 μ L/kg (RTECS)	LC50=88~174ppm (4Hr) (IUCLID) Rat	
1,3Di chloro 2-pro papanol	LD50=110~122 mg/kg Rat (Initial Risk Assessment Report)	LD50=800mg/kg Rabbit (Initial Risk Assessment Report)	LC50=130~595ppm Rat (24Hr) (Initial Risk Assessment Report)	

	Skin corrosion/ irritation	Serious eye damage /irritation	Respiratory sensitization	Skin sensitization
Ethanol	Rabbit, Skin irritation test (OECD, TG404, 4hr) No irritation	Rabbit Eye irritation test (OECD TG405) Moderate irritation	Patients with mild stable asthma, inhalation provocation test severe bronchoconstriction	Human, Allergic, contact dermatitis etc (DFGMAK)

	Skin corrosion/ irritation	Serious eye damage /irritation	Respiratory sensitization	Skin sensitization
3-chloro 1,2 propane diol	No data	Rabbit Eye irritation test Moderate irritation (HSDB, IUCLID)	No data	No data

	Skin corrosion/ irritation	Serious eye damage /irritation	Respiratory sensitization	Skin sensitization
1,3Di chloro 2-pro papanol	Rabbit, Skin irritation test (24hr) Irritation (Initial Risk Assessment Report RTECS)	Rabbit, Eye irritation test Severe irritation (Initial Risk Assessment Report Eye irritation (ICSC)	No data	No data

	Germ cell mutagenicity	Carcinogenicity	Reproductive toxicity
Ethanol	Rat, in vivo Chromosomal aberration test Micronucleus test (Drinking-water administration) Negative (SIDS, IARC)	(alcoholic drink IARC group 1 (Carcinogenic to human)	Drinking alcohol more than a certain level; Increased abortion and a risk of abortion (IARC)
3-chloro 1,2 propane diol	Mouse Dominant lethal test 8intraperitoneal administration/ oral administration) Negative (IUCLID)	IARC Group 2B Possibly carcinogenic to humans	Male, rat, Single-dose oral toxicity test 50mg/kg A decrease in sperm head, swelling of the testis, etc (HSDB)
1, 3Di chloro 2-pro papanol	Rat/Mouses in vivo Micronucleus test Negative (Environmental Risk Assessment, NTP)	IARC Group 2B Possibly carcinogenic to humans	Male, rat Single-dose subcutaneous toxicity test 43.7mg/kg A slight decrease in epididymal sperm count (Initial Risk Assessment Report)

	Specific target organ toxicity single exposure	Specific target organ toxicity repeated exposure	Aspiration hazard
Ethanol	Human inhalation toxicity test Stupor, somnolence mild paralysis Inhalation exposure: Upper airway irritation (ACGIH)	Human, Long-term large ingestion Hardous effects on almost all organs, Target: Liver (Fatty liver, hepatic necrosis (DFGMAK)	Classification not possible

	Specific target organ toxicity single exposure	Specific target organ toxicity repeated exposure	Aspiration hazard
3-chloro 1,2 propane diol	Rat, Oral toxicity test: 100 to 200mg/kg Renal tubular dilation, necrosis or degeneration of renal tubular epithelium (HSDB)	Rat, 4 week oral toxicity test 60mg/kg/day A decrease in hemoglobin concentration, or red blood cell volume or count, chronic progressive nephropathy (IUCLID)	Classification not possible
1, 3Di chloro 2-pro papanol	Human, Exposure during cleanup operation, General malaise, nausea vomiting acute liver injury, deaths (Initial Risk Assessment Report)	Male rat 14 day oral toxicity test 20mg/kg/day : Spermatocele in the efferent duct (Initial Risk assessment Report) May cause effect on the liver or kidney (ISCS)	Classification not possible

12. Ecological information

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

Hazardous to the aquatic environment, short time (acute) :Not classified
 Hazardous to the aquatic environment, long time (chronic) :Not classified

	Ecotoxicity	Persistence and degradability	Bioaccumulative potential	Mobility in soil
Ethanol	LC50>100mg/L (96hr) (SIDS) Fish-Fathead minow	Biodegradation test(2week) Readily biodegradable		No additional information available
3-chloro 1,2 propane diol	LC50=2100mg/L (48hr) (IUCLID) Fish-Harlequin Rasbora	Biodegradation test(2weeks) Percentage degradation 68% (BOD) (HSDB)	BCF=0.2 (predicted value) (HSDB)	No additional information available
1,3Di chloro 2-pro papanol	LC50>100mg/L (96hr) (SIDS) Fish-Medaka (Environmental Risk Assessment, Initial Risk Assessment Report	Biodegradation test(4weeks) Readily biodegradable (Environmental Risk Assessment, Initial Risk Assessment Report	BCF=3.2 (predicted value) (Environmental Risk Assessment, Initial Risk Assessment Report)	No additional information 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

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	
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) No. 61 Ethanol 3Chloro 1,2propanediol Regulation appended table 2-544 (Apr/1/2025 enforcement) 1,3dichloro 2propanol Regulation appended table 2-845 (Apr/1/2025 enforcement)
Pollutant Release and Transfer Register Law (PRTR Law)	: Not applicable
Poisonous and Deleterious Substances Control Act	: Not applicable
Marine Pollution Prevention Act	:Hazardous liquid substance (Category Y substance) 3chloro 1,2propanediol :Hazardous liquid substance (Category Z substance) Ethanol
Air Pollution Control Act	:Volatile organic compound (Article 2-4) Ethanol 1,3dichloro 2propanol

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 cited

: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 Insutitute of Technology and Evaluation)
CHEMGOLD2 (ChemWatch)

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.