Reference: EV01363-00

# SAFETY DATA SHEET

# 1. Chemical product and company identification

Product Name : HM-225

Supplier Name : HORIZON INTERNATIONAL., INC.

Address : 510 Kuze Ooyabu-cho, Minami-ku, Kyoto, 601-8206, Japan

Section in its duty : sales & Support
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Date prepared : Aug. 25 2016 Date revised :

### 2. Hazards Information

### **GHS** Classification

Physical and Chemical Hazards

Flammable solids : Classification not possible
Pyrophoric solids : Classification not possible
Self-heating substance : Classification not possible
Corrosive to metals : Classification not possible

#### Health and Environmental Hazards

Acute toxicity Oral : Not classified
Acute toxicity Dermal : Not classified
Acute toxicity Inhalation Gasses : Not applicable
Acute toxicity Inhalation Vapors : Not applicable

Acute toxicity Inhalation Dusts : Classification not possible
Acute toxicity Inhalation Mists : Classification not possible
Skin corrosion / irritation : Classification not possible

Serious eye damage / eye irritation : Category 2B

Respiratory sensitization : Classification not possible Skin sensitization : Classification not possible Germ cell mutagenicity : Classification not possible Carcinogenicity : Classification not possible Reproductive toxicity : Classification not possible

Specific target organ systemic toxicity

Single exposure : Category 3

(Respiratory tract irritation)

Classification not possible

Repeated exposure : Category 1

Aspiration hazard

Hazardous to the aquatic environment

Acute toxicity : Classification not possible
Chronic toxicity : Classification not possible
Hazardousness to the ozone layer : Classification not possible

#### **GHS Label Elements**

Symbol



Signal Word : Danger

Hazard Statement : Causes eye irritation

Fear of stimulation to respiratory organ

Causes internal organs damage through prolonged or repeated

exposure

Precautionary statements

Prevention : Obtain and read an instruction manual before use.

Don't handle till read and understand all security attention.

Avoid breathing dust / fume / mist / vapor / spray.

Wear suitable protective gloves or personal protective tools

if necessary.

Use in well-ventilated area and ventilate the workshop enough.

Don't take out the polluted work-clothes from workshop.

Wash clothing when you reuse polluted clothes.

Response : Wash hands thoroughly after handling.

If adhering to the skin, wash thoroughly with soap and plenty of

water soap.

If skin irritation or a rash appeared, get medical advice /

attention.

When you enter the eyes, wash it with water carefully.

Call doctor/physician if you feel unwell.

Storage : Store in sealable containers with key in well-ventilated place.

Disposal : Dispose in accordance with local / regional / national /

international regulation.

#### 3. Composition / information on ingredients

Chemical substance or mixture : mixture

Chemical name or generic name : Ethylene—vinyl acetate copolymer—based hot melt

adhesives

Ingredients and contents : Ethylene—vinyl acetate copolymer etc. 100%

### [Density range of constitution ingredients (Japan)]

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Constitution ingredients	Density	Public announcement	CAS	Remarks
Constitution ingredients	range	reference number	Number	ivemarks
Ethylene – vinyl acetate	Closed	(6)-6	24937-78-8	Thermoplastics
copolymer	Ciosed	(6)-0	24931-10-0	Thermoplastics
Degeneration natural resin	Closed	Existing	Closed	Tackifier resin
Petroleum resin	Closed	Existing	Closed	Tackifier resin
Hard paraffin	10~20%	Existing	8002-74-2	Plasticizer
${ m TiO_2}$	<3.0%	(1)-558	13463-67-7	Colorant
Additive	<2.0%	(3)-1693	6683-19-8	Antioxidant
Product (mixture)	100.0%	_	_	_

[Laws and regulations object ingredients (Japan)]

Constitution ingredients	Industrial Safety & Health Act	Pollutant Release and Transfer Regulation ( PRTR )	Poisonous and Deleterious Substances Control Act
Hard paraffin	Display, Notifiable substance No.170	Non-correspondence	Non-correspondence
TiO <sub>2</sub>	Display, Notifisble substance No.191	Non-correspondence	Non-correspondence

( Notice : Follow all regulations and laws in your country )

### 4. Emergency measures

Inhalation

Remove to fresh air and keep at rest in a position comfortable for breathing, and then get medical advice / attention immediately. If breathing has stopped, apply artificial respiration after clothes are loosened and the respiratory airway is secured, and call the doctor immediately.

When breathing and vomiting, do a brain to the side.

Don't give anything from the mouth to the victim when not conscious.

Employ an attendant to the victim, and must not leave alone.

Skin contact

: In the case of contact of the degree without the burn, wash it away with water well and wash it with soap more, then call a doctor.

When you touched to the molten product, promptly cool off with plenty of water, and then get medical attention.

Don't peel off forcibly when the product and clothes, etc. stick in the skin.

(Don't crush the blister, and do not peel off the skin.)

Call a doctor if you feel unwell.

Eve contact

: In case of contact with eyes, rinse with plenty of water for at least 15 minutes, and get medical attention immediately.

Remove contact lenses (if worn) if easily possible, then continue rinsing. When a molten product entered to the eyes, cool enough with plenty of water immediately, and get medical attention to the burn.

(Don't rub eyes, and open it forcibly.)

Ingestion

: If conscious, give plenty of water or milk to drink, and get immediately medical attention.( show this container or label )

Concise information on the most important symptom

: The vapor occurring at the time of heating, stimulates eyes, a nose, a throat, respiratory organs and a mucous membrane.

The vapor occurring at the time of heating, causes symptoms such as unpleasantness, a headache, and a lacrimation.

If the molten product touched any body part, a serious burn is caused.

Protection of a person taking a first-aid measure

: Wear appropriate protective equipment, when there are a possibility of coming in contact with the molten product and a possibility of inhaling vapor.

Special instructions for the doctor

: Wear appropriate protective equipment, when there are a possibility of coming in contact with the molten product and a possibility of inhaling vapor.

# 5. Fire-fighting measures

Fire extinguisher: Powder fire extinguishing medicine, bubble fire extinguishing medicine,  $CO_2$ , sand, water (a large quantity of water), etc.

Fire extinguisher that are not suitable

: Don't use cylinder shape water, because it might expand a fire.

Specific dangerous hazardous property at a fire

: Carbon dioxide, carbon monoxide, in addition, nitrogen oxide-based gas, and hazardous gases or vapors may evolve on burning.

Specific fire extinguishing method

: Perform the fire extinguishing work from windward. It is noted enough that cylinder shape water scatters the hot water or the molten products, and has possibility of the burn. In this case, it is effective to intercept air by using the fire foam. Stop the supply of combustion source immediately, and water the equipments of surroundings and it cools off. Prohibit people except the parties concerned from entering around the fire occurrence place, and let them evacuate to the safe place.

Perform an appropriate measures so that the material which has an influence on environment should not flow out by watering for fire extinguishing.

#### Protection for firefighters

: On the occasion of fire extinguishing work, wear complete protective clothing, perform a step of the prevention of burn, and perform fire fighting from windward.

Because toxic gas may be generated, wear a tool for an appropriate breath protection (a gas mask for organic gas or self-contained breathing apparatus).

#### 6. Accidental release measures

Personal precaution

: Stretch a rope around leaking, and prohibit peoples other than persons concerned from entering in the zone.

Evacuate all non essential personnel from the area

immediately.

Wear the appropriate protection equipment, and perform the

collecting work from windward.

When the molten product leaked, allow the product to cool/

solidify and remove as a solid.

Perform enough ventilation till collection is over.

Environmental precaution : Do appropriate measures to inform the leakage to neighboring resident, because there is a possibility of feeling the smell unpleasantly according to the person.

> Prevent the leaking dispersion of the material to the outside, the outflow to the river, drainage, and the drainage trench, and

infiltration to the soil.

Moreover, make efforts to collect the whole quantity when

flowing out.

: If the molten product leaked, cool off and solidify. Recovery method

And then collect it as a solid state in sealable containers.

Prevention of secondary hazards

: Remove all sources of ignition from the circumference immediately.

### 7. Handling and storage precaution

Handling:

Technical measures : Fire attention.

Use special melting equipment and coating equipment.

Don't heat product directly by the fire etc..

Near a handling place, install the equipment to cool, to wash

a hand, a face and a body, and to gargle in emergency.

Wear the protective equipment when there is a possibility of

inhalation or contact to the skin.

Perform the handling at a good place of the ventilation, and

also perform the ventilation of the workshop enough. Install a local exhaust or the total exhaust if necessary.

Safe handling advice : Do not handle until reading and understanding all the safety

attention.

Don't treat the containers violently to lead to damage. Avoid breathing vapors and fumes from the molten product

at heating.

Perform the handling in the outdoors as much as possible from

windward.

After handling, wash a hand, a face and a body well, and also

gargle.

Prohibit the entry to the handling places other than the person

concerned.

Storage:

Technical measures : Keep it in the inventory location of "Designated flammable

good".

Seal it up so that garbage and water do not enter, and keep it. Store in a well-ventilated, cool and dark place away from fire

sources and high temperature objects.

Avoid the direct sunshine because the direct sunshine may

decrease the performance of the product remarkably.

Packaging materials : The wrapping material which prevent moisture absorption,

electrostatic outbreak and the package which is hard to destroy

are desirable, if possible.

# 8. Exposure controls / personal protection

Management density : No information is available.

Permissible Exposure Limit: (as Permissible Exposure Limit for constitution ingredients)

	Permissible Exposure Limit			
Constitution ingredients	Japan Association on Industrial Health	ACGIH		
Ethylene — vinyl acetate copolymer	8mg/ m³ (Total dust)	TWA(8h) 10mg/ m <sup>3</sup> (Total dust)		
Hard paraffin	No information is available	2mg/ m³ (Fumes in air)		
$TiO_2$	4mg/ m³ (Total dust)	TWA 10mg/ m <sup>3</sup>		

Note: Total dust is referred to the standard value of "the 2<sup>nd</sup>, 3<sup>rd</sup> kind dust".

Equipment measures : In mixing and molding work, it is desirable to use sealing

up-type melting equipment.

Install a local exhaust or the total exhaust, if necessary. Near a handling place, install the equipment to cool, to wash

a hand, a face and a body, and to gargle in emergency.

Personal protection equipment

Respiratory protection : Breathing protection when handling the molten product,

Such as gas mask for organic gas, dust protective mask and

Supply air mask, etc.

Hand protection : Heat-insulting gloves when handling the molten product.

Eye protection : Safety goggles when handling the molten product.

Skin and body protection: Heat protective suits when handling the molten product.

Hygiene measures : Wash hands and gargle after handling.

### 9. Physical and chemical properties

Physical state

Shape : Solid Color : White Odor : It is PH : No data

The specific temperature/temperature range where a physical state changes

Boiling point and : No data

Boiling range

Softening point :  $108 \pm 7$  °C Decomposition temperature : No data Flash point : No data Ignition point : No data Explosion range : No data Vapor pressure : No data Vapor density : No data

Density :  $1.00 \pm 0.05 \,(g/cm^3)$ Solubility : Not soluble in water

VOC, weight percent : 0.00% (Toluene, Xylene, Ethylbenzene, Styrene)

10. Stability and reactivity

Stability : Stable in normal conditions.

But the performance of the product may change by heat and

Sunshine.

Hazardous reaction potential: Stable. No self reactivity.

Condition to avoid : Avoid all sources of ignition, direct sunshine, water and

excessive heat.

Incompatible products : No information

Hazardous decomposition products

: Carbon dioxide, carbon monoxide and other poisonous gas.

### 11. Toxicological information

(1) Acute toxicity

(Oral) : (Hard paraffin) rat LD50 > 5000mg/kg

 $\begin{array}{lll} \text{(TiO_2)} & \text{rat} & \text{LD50} > 10000 \text{mg/kg} \\ \text{(Additive)} & \text{rat} & \text{LD50} > 2000 \text{mg/kg} \end{array}$ 

Because the mixture is ATEmix>2,000, it is said that it is out of division.

(Classification JIS)

(Dermal) : (Hard paraffin ) rabbit LD50 > 3600mg/kg

 $(TiO_2)$  rabbit  $LD_{50} > 10000 mg/kg$  (Additive) rat  $LD_{50} > 2000 mg/kg$ 

Because the mixture is ATEmix>2,000, it is said that it is out of division.

(Classification JIS)

(Inhalation:gas,vapor): Not applicable

(Inhalation:mist,dust): No information

(2) Skin corrosion / stimulativeness

: No information (Classification JIS)

(3) Serious eye damage / stimulativeness to eyes

: (Hard paraffin, TiO<sub>2</sub>) Category 2B

(Causes eye irritation)

(4) Respiratory organs sensitization

: No information

(5) Skin sensitization : No information

(6) Germ cell mutagenicity: No information

(7) Carcinogenicity : No information

(8) Reproductive toxicity : No information

(9) Specific target organ / systemic toxicology

Single exposure : (Hard paraffin, TiO<sub>2</sub>) Category 3

(Fear of stimulation to respiratory organ)

Repetitive exposure: (TiO<sub>2</sub>) Category 1

(Causes internal organs (lungs or skin) damage through

prolonged or repeated exposure)

(10) Aspiration respiratory organs hazard

: No information

Other information : The data of this product in itself are not provided.

### 12. Ecological information

(1) Hazardous to the aquatic environment-acute toxicity : No information

(2) Hazardous to the aquatic environment-chronic toxicity : (TiO<sub>2</sub>) Category 4 (Other there is no component of the information, it can not be classified)

(3) Hazardousness to the ozone layer

: No information

Other information : The data of this pro

: The data of this product in itself are not provided.

### 13. Disposal considerations

Residual waste : Dispose in accordance with the current local

regulations in the own country.

Dispose after completely cooling off, if waste is

a high temperature.

Contaminated containers or packing : Dispose of an empty container after completely

removing contents.

Dispose in accordance with the current local

regulations in the own country.

### 14. Transport information

UN classification : Not the dangerous materials of the United Nations definition.

Domestic regulation : Follow the mode of transportation established in applied laws

and ordinances in the own country.

Specific safety measures and a condition of the transportation (in Japan)

: Fire attention.

Transport it by the container and the loading method according to regulations of "Fire Service Act", because it corresponds to

"Designated flammable goods" of this law.

Confirm that there are not the damage, corrosion and a leak of

the container before the transportation.

Avoid the direct sunshine, and keep the water wet, and the water getting wet and pouring water and the high temperature

are assumed to be strict prohibition, and also keep dry.

#### 15. Regulatory information

Take the application of the laws and ordinances of the own country.

#### In Japan:

PRTR(Pollutant Release and Transfer Regulation)

: Non-correspondence

Industrial Safety Control Act

: Article 57-2 Display substance, Notifiable substance

Hard paraffin (No. 170) TiO<sub>2</sub> (No. 191)

Poisonous and Deleterious Substances Control Act

: Non-correspondence

Fire Service Act : Article 9-4 Designated flammable goods (Synthetic resins)

(more than 3,000kg)

Waste Management and Public Cleaning Act

: Article 2 (Waste plastics)

#### 16. Other information

#### Literature references :

"Model MSDS Creation and guidance of GHS MSDS corresponding" Japan Adhesive Industry Association

The Chemical Daily published

"Globally Harmonized System of Classification and Labelling of Chemicals (GHS)" (five revision)

JIS Z 7253: 2012 "The methods of communicating hazard information of chemicals based on GHS - labels, safety data sheets and display of workplace within"

JIS Z 7252: 2009 "Classification method of chemical substances based on the GHS" National Institute of Technology and Evaluation HP (comprehensive chemical substance information providing system)

Raw materials supplied by the manufacturer (product) Safety Data Sheet

#### Others :

It has been prepared on the basis of the information available at the moment of our book, but does not guarantee, such as aptitude harmlessness accuracy of the information, credibility, product safety, for applications.

Among the information in this document, guaranteed value, the value "content", "composition and ingredient information," and "physical and chemical properties" is not a standard value.

Unknown hazards, risk, and also considered the chemical products of all, there may not be enough information necessarily dangerous, hazard, evaluation, and careful attention must be paid to the handling.

In addition, since the notes contained in this document are those intended for normal handling, as a reference to this, the responsibility of their own, your on the implement appropriate safety measures in accordance with the actual situation of the handling of individual Please use.

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