Creation Date 2017/04/01 Revision Date

SAFETY DATA SHEET

Product name: METABLENTM P-533J
Freight classification PLASTICS, White powder
Used for: Modifier for Plastics

1. COMPANY IDENTIFICATION

Manufacture (Company)

Name: MITSUBISHI CHEMICAL CORPORATION..

Address: 1-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8251 JAPAN

Manufacture: Otake Production Center

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2. HAZARD INFORMATION

GHS

Classification: not classified Symbol: not applicable

Signal Word: none Hazard Statement: none

Other Hazardous Information that is not applicable GHS Classification

Emergency Overview:

White powder with slight odor.

Dust explosion potential – avoid all dust formation and all ignition sources.

Slippery – can cause falls if walked on.

This material is not flammable, however, it will burn.

Potential Health Effects:

No information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name: Acrylic Resin
CAS registry number: nondisclosure
EINECS: Monomers included

Approx. weight percentage: 98% weight percentage or more

Residual monomer: Trace

Not a hazardous substance or preparation according to EC 1272/2008...

4. FIRST AID MEASURES

Inhalation:

If small amounts of this product are inhaled, specific treatment is generally not expected to be necessary. If exposed to excessive levels, if contact is prolonged, or if exposure causes adverse symptoms, move person to fresh air and seek medical attention.

Ingestion:

In case of accidental overdose/over-ingestion, seek medical attention or contact a poison control center immediately.

Do not induce vomiting. Dilute by giving 1 or 2 glasses of milk or water.

Nothing by mouth if unconscious. Seek medical attention.

Eye Contact:

Immediately flush eyes with a continuous water stream for several minutes.

Washing immediately after exposure is expected to be effective in preventing adverse effects to the eyes.

Seek medical attention in the case of any adverse effects.

Skin Contact:

Wash with plenty of water, then with soap and water for 15 minutes.

Seek medical attention if exposed to large quantities, if contact is prolonged, or if exposure causes more than minor discomfort.

Discard contaminated clothing and shoes.

5. FIRE FIGHTING MEASURES

Extinguishing media:

Foam, CO₂, dry chemical, and water fog as needed. Water fog is recommended to avoid powder explosion.

Special Protective Equipment:

Use a self-contained breathing apparatus when fighting fires involving this material.

Usual fire and explosion hazard:

Cool containers/packaging of the material with water spray water to prevent possible auto ignition and/or explosion.

Avoid release to the environment of water used for cooling.

This material is not flammable, however, it will burn.

6. ACCIDENTAL RELEASE MEASURES

Spill and Cleanup Procedures:

Sweep up spilled material and place in a disposal container.

Wear suitable protective equipment. Remove all sources of ignition.

Other Instructions:

Polymer particles are slippery and will cause floors to be slippery.

Sweep up or scoop material into a container for disposal and sweep floor.

7. HANDLING AND STORAGE

Handling:

Keep away from open flames, sparks, heat-sources, and all other sources of ignition.

Handle only in well-ventilated areas.

Avoid eye and skin contact.

Keep handling area and processing equipment clean.

Avoid all dust formation since this product, including its dust, at sufficient concentrations can form explosive mixtures with air in the presence of an ignition source.

See SECTION 16 for additional information on dust explosion potential.

Storage:

Avoid direct sunlight, water, and all heat and ignition sources.

Keep materials at cool and dry place as the same level as of general warehouse.

On the other hand, fine dust of the materials may induce dust explosion under certain conditions (See section 5) due to the material is an organic Hydrocarbon inflammable material.

Storage temperature: Maximum thirty –five(35) degrees Celsius.

Indoor: YES Heated: NO

Humid place: NO Refrigerated: NO

Out door: NO

Equipment:

Use explosion-proof equipment and devices.

Ground all equipment to prevent accidents resulting from static electricity.

For ventilation, use wet-type local exhaust.

Install explosion suppression systems and explosion vents in receiving containers or transfer lines.

In case of pneumatic transportation, low oxygen concentrations in air (<10%) are recommended.

Pay particular attention to the storage tanks and hoppers, to avoid dust explosion.

Electrostatic eliminators should be affixed to such equipment as storage tank, hopper and transferring pipe, to avoid ignition.

All electrical switches in these areas should be used anti-explosion type based on local regulations.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Ventilation type:

Wet-type local exhaust (e.g., wet dust collector) is recommended.

Respiratory protection:

Wear MSHA/NIOSH approved or equivalent dust respirator.

Protective gloves:

Recommend use impervious gloves to avoid irritation.

Eye protection:

Safety glasses with side shield should be used.

Other protective equipment:

Eye-washing facility should be provided.

Exposure Guidelines:

There are no established exposure guidelines or limits for this product.

Please consult your national or local regulations for particulates not otherwise regulated (nuisance dust).

9. PHYSICAL AND CHMICAL PROPERTY

Appearance: White powder

Odor: Slight odor of monomers Viscosity: N.A. (not applicable)

Melting point:

Freezing point:

N.A.

N.A.

Boiling point:

Vapor pressure (mm Hg):

N.A.

Vapor density (AIR=1):

Solubility in water:

N.A.

Insoluble

Percentage volatile: 1.0 weight percentage or less

Specific gravity:

Evaporation rate:

N.A.

Flash point:

Decomposition temperature:

Lower explosion limit:

Upper explosion limit:

N.A.

Lower dust explosion limit:

50 g/m3

Minimum ignition energy: $3 < MIE \le 10 \text{ mJ}$ (with inductance)

The physical data presented above are typical values and should not be construed as a specification.

(Minimum ignition energy of PVC powder: >2000 mJ)

Limiting oxygen concentration: 10%

Maximum rate of pressure rise (K_{st} value): 400-500 bar m/sec; dust explosion class: St 3.

(K_{st} value of PVC powder: 40~70 bar m/sec; dust explosion class: St 1)

Ignition temperature : No information

10. STABILITY AND REACTIVITY

Stability:

Stable under normal handling and storage conditions.

Condition to avoid:

Excessive heat, sparks, open flames, and all ignition sources.

Avoid high temperature areas, exposure to heat-generating equipment, and humid places.

Hazardous decomposition products:

Decomposition is detectable at 240 $^{\circ}$ C but the quantity of gaseous decomposition products remains small until temperature above 400 $^{\circ}$ C are reached.

Decomposition gaseous are Carbon oxide.

Thermal decomposition may generate Methacrylic, Acrylic monomers and gaseous Carbon mono-oxide.

Hazardous polymerization:

Will not occur

Incompatibility (material to avoid):

Strong acids and oxidizing agents.

11. TOXICOLOGICAL INFORMATION

Routes of Entry:

Inhalation:

Inhalation of dust particles of the product may cause irritation to the respiratory tract.

Excess residual monomer vapors, given off during high temperature processing, may cause irritation to the respiratory tract, eyes, or mucous membranes.

Excessive exposure to these monomer vapors may also cause nausea, headaches, and dizziness.

Eyes contact:

Dust particles and/or vapors of residual monomers may irritate eyes or mucous membrane.

Skin contact:

Dust particles may irritate skin.

In certain individuals, this product may cause skin sensitization.

Ingestion:

Improbable route of entry and no information on the ingestion toxicity.

Acute toxicity:

The acute toxicity of this product is expected to be low.

Sub-chronic Toxicity:

There are no sub-chronic toxicity data on this product.

Based on the data of similar polymers, this product is expected to be of low sub-chronic toxicity.

Reproductive Toxicity:

There are no reproductive toxicity data on this product.

Based on the data of similar polymers, this product is not expected to present a reproductive toxicity hazard.

Developmental Toxicity:

There are no developmental toxicity data on this product.

Based on the data of similar polymers, this product is not expected to present a developmental toxicity hazard.

Mutagenicity:

There are no mutagenicity data on this product.

Based on the data of similar polymers, this product is not expected to present a

mutagenicity hazard.

Carcinogenicity:

There are no chronic effects or carcinogenicity data on this product.

Based on the data of similar polymers, this product is not expected to present a chronic or carcinogenicity hazard

Medical conditions generally aggravated by exposure: Not known.

The product has been produced without using such toxic organic metallic materials as Chromium (Cr), Lead (Pb), Cadmium (Cd), Mercury (Hg), Tin (Sn), and Arsenic (As) compound. Also, such plasticizers as DOP (n-Di-Octyl phthalate), DOA (n-Di-Octyl adipate), and Polyester plasticizers were not used as raw materials for this product.

12. ECOLOGICAL INFORMATION

Eco-toxicity:

No eco-toxicity information is available.

This product is not expected to be eco-toxic.

Biodegradability:

No biodegradability information is available.

This product is not expected to be readily biodegradable.

Bio-accumulative potential:

No bioaccumulation information is available.

This product is not expected to bio-accumulate.

Mobility in Soil:

No soil mobility information is available.

This product is expected to have low soil mobility.

13. DISPOSAL CONSIDERATIONS

Waste disposal method:

Do not discharge effluent containing this product into municipal sewers or open bodies of water.

All recovered material should be transferred to a container for disposal.

Incinerate or landfill the wastes in an approved facility that complies with local, state, and federal regulations.

14. TRANSPORT INFORMATION

U.N. / N.A. Number: None assigned.

This product is not regulated as a hazardous material/dangerous goods under national or international hazardous materials regulations.

Follow all regulations in your country.

Accord to precautions relating to handling and storing.

15. REGURLATOLY INFORMATION

Publication number in Japanese official gazette:

Registered. (The Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances)

16. OTHER INFORMATION

No data.

The information presented herein is believed to be factual, however, nothing contained in this information is to be taken as a warranty or representation for which the supplier or manufacturer bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.