

Material Safety Data Sheet Methyl Methacrylate Acrylonitrile Butadiene Styrene

Section 1 - Product Identification

Synonyms : MABS
Chemical Formula : $-(C_5H_8O_2)_k-(C_8H_8)_l-(C_3H_3N)_m)_n$
Company Identification : Tradeasia International Pte. Limited
Address : 133 Cecil Street # 12-03 Keck Seng Tower, Singapore
Tel: +65-6227 6365
Fax: +65-6225 6286
Email: contact@chemtradeasia.com
Recommended use :

Section 2 – Composition/Information on Ingredients

Chemical Name	EC No/CAS No	Purity, %
Methyl methacrylate acrylonitrile butadiene styrene	9011-14-7	max. 99.9

Section 3 – Hazards Identification

3.1 Classification of the substance or mixture:

Classification according to Regulation (EC) No 1272/2008.

- Not classified

Classification according to Directive 1999/45/EC.

-Not classified

3.2 Label elements

Labelling according to Regulation (EC) No 1272/2008[CLP]

- Hazard pictogram(s) : Not applicable

- Signal word : Not applicable

- Hazard statement(s) : Not applicable

- Precautionary statement(s) : Not applicable

- Supplemental Hazard information (EU): Not applicable

3.3 Other hazards

- No other hazards identified

Section 4 – Composition/ information on ingredients

4.1 Composition comments

Substance / Mixture : Mixture

Chemical Name : Mixture of Methylmethacrylate-Acrylonitrile-Butadiene-Styrene Copolymers and Additives

Synonyms : MABS Resin

Section 5 – First-Aid Measures

5.1. Description of first aid measures

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Inhalation

Remove person to fresh air. If signs/symptoms develop, get medical attention.

Skin contact

Remove contaminated clothing and shoes. Immediately flush skin with large amounts of water. Get medical attention. Wash contaminated clothing and clean shoes before reuse.

Eye contact

Immediately flush eyes with large amounts of water for at least 15 minutes. Get immediate medical attention.

Ingestion

Do not induce vomiting unless instructed to do so by medical personnel. Give victim two glasses of water. never give anything by mouth to an unconscious person. Get medical attention.

Section 6 – Fire Fighting Measures

6.1. Suitable Extinguishing media

Ordinary combustible material. Use fire extinguishers with class A extinguishing agents (e.g. water, foam)

6.2. Specific hazards arising from the chemical

N.A.

6.3. Special protective actions for fire-fighters

Wear full protective equipment and a self-contained breathing apparatus.

Section 7 – Accidental Release Measures

7.1. Personal precautions, protective equipment and emergency procedures

Evacuate unprotected and untrained personnel from hazard area. The spill should be cleaned up by qualified personnel. Ventilate the area with fresh air. For large spill, or spills in confined spaces, provide mechanical ventilation to disperse or exhaust vapours, in accordance with good industrial hygiene practice. Warning: A motor could be an ignition source and could cause flammable gases or vapours in the spill area to burn or explode.

7.2. Environmental precautions

Collect the resulting residue containing solution. Place in a closed container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

7.3. Methods and material for containment and cleaning up

Please observe precautions from other sections of this Safety Data Sheet. Contain spill. Working from around the edges of the spill inward, cover with bentonite, vermiculite, or commercially available inorganic absorbent material. Mix in sufficient absorbent until it appears dry. Collect as much of the spilled material as possible. Clean up residue with an appropriate solvent selected by a qualified and authorised person. Ventilate the area with fresh air. Read and follow safety precautions on the solvent label and Safety Data Sheet.

Section 8 – Handling and Storage

8.1. Precautions for safe Handling

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Avoid inhalation of vapours, mists or spray. Avoid breathing of vapours created during the cure cycle. For industrial or professional use only. If ventilation is not adequate, use respiratory protection equipment.

8.2. Conditions for safe storage, including any incompatibilities

Store away from heat. Store out of direct sunlight.

Section 9 – Exposure Controls/Personal Protection

9.1. Appropriate engineering controls

Provide local exhaust ventilation system or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value.

9.2. Individual protection measures, such as personal protective equipment (PPE)

Respiratory protection

Avoid inhalation of vapours, mists or spray. Avoid breathing of vapours created during the cure cycle. Select one of the following approved respirators based on airborne concentration of contaminants and in accordance with regulations: Half face piece or full face air-purifying respirator with organic vapour cartridges. Consult the current 3M Respiratory Selection Guide for additional information or contact 3M for technical assistance.

9.3. Hand protection

Gloves made from the following material(s) are recommended: Polyvinyl alcohol (PVA).

Eye/face protection

The following eye protection(s) are recommended: Full face shield. Indirect vented goggles.

Skin protection

Avoid skin contact. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

Ingestion

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Not applicable.

Section 10 – Physical and Chemical Properties

10.1. Information on basic physical and chemical properties

Appearance : Pellet shaped solid

Color : Colorless

Odor : None

pH : N/A

Boiling point : N/A

Boiling range (Mixture) : N/A

Melting point : This product softens gradually over a broad temperature range (130–150 C)

Decomposition temperature : N/A

Flash point : N/A

Ignition temperature : About 405 C

Explosion limit (Upper) : N/A

Explosion limit (Lower) : 60g/m (particle size < 0.2mm)

Vapor pressure : 1.06-1.12

Vapor density : N/A

Solubility : Insoluble in water. Partly soluble in organic solvent.

Octanol / water partition coefficient : N/A

Section 11 – Stability and Reactivity

11.1. Reactivity

Hazardous polymerization reaction does not occur.

11.2. Chemical stability

This product is considered a stable material under normal and anticipated storage and handling conditions

11.3. Possibility of hazardous reactions

Fire may produce irritating and/or toxic gases.

11.4. Conditions to avoid:

Avoid fire and heating above 60°C

11.5. Incompatible materials

N.A.

11.6. Hazardous decomposition products

N.A.

Section 12 – Toxicological Information

Acute toxicity : Not classified

Skin corrosion / irritation : Classification not possible. (N/A)

Serious eye damage / eye irritation : Classification not possible. (N/A)

Respiratory or skin sensitization : Classification not possible. (N/A)

Germ cell mutagenicity : Not classified

Carcinogenic effects : Not classified

Toxicity for reproduction : Not classified

Specific target organ / systemic toxicity (Single exposure) : Not classified

Specific target organ / systemic toxicity (Repeated exposure) : : Not classified

Aspiration hazards : : Classification not possible. (N/A)

Section 13 – Ecological Information

Ecological toxicity : Classification not possible. (N/A)

Biodegradability : Classification not possible. (N/A)

Bioaccumulation : Classification not possible. (N/A)

Mobility in soil : Classification not possible. (N/A)

Section 14 – Disposal Considerations

14.1. Disposal methods

Dump the waste matters following law, rules and regulations.

Section 15 – Transport Information

ADR:Not hazardous for transport

IATA:Not hazardous for transport

IMDG:Not hazardous for transport

Section 16 – Regulatory Information

15.1. Safety, health and environmental regulations

We are not able to check up the regulatory information in regard to the substances in your country or region. Therefore, we request this matter would be filled by your responsibility. Regulatory information with regard to this product in your country or in your region should be examined by your own responsibility. Ensure this product in compliance with federal requirements and ensure conformity to local regulations.

Section 16 : Additional Information

16.1. List of abbreviation and acronyms used in this MSDS

SDS : Safety Data Sheets

Index N° : atomic number of the element most characteristic of the properties of the substance

CAS No : Chemical Abstracts Service number

EC No : EINECS Number : European Inventory of Existing Commercial Substances

Repr. Cat. 2 : Substance presumed human reproductive toxicant

Acute Oral Cat. 5 : Substance which is of relatively low acute oral toxicity.

GHS : Globally Harmonised System of Classification and Labelling

LD₅₀ : Median Lethal Dose

LC₅₀ : Lethal Concentration, 50%

N.A. : Not Applicable

OSHA : Occupational Safety & Health Administration

Cal OSHA : The State of California Division of Occupational Safety and Health (DOSH)

PEL : Permissible Exposure Limits

ACGIH : American Conference of Governmental Industrial Hygienists

TLV : Threshold Limit Value

Japanese MITI : Japanese Ministry of International Trade and Industry

EC₅₀ : Half maximal effective concentration

UN : United Nations

U.S. EPA TSCA Inventory: Inventory of the chemical substances manufactured or processed in the United States according to Toxic Substances Control Act compiled and published under the authority of the Environmental Protection Agency

Canadian DSL: Canadian Domestic Substances List

16.2. List of relevant hazard statements and precautionary statements used in this MSDS

Hazard Statement

H361 d: Suspected of damaging the unborn child

H319: Causes serious eye irritation

H303: May be harmful if swallowed

Precautionary Statements

Prevention

P201: Obtain special instructions before use.

P202: Do not handle until all safety precautions have been read and understood.

P281: Use personal protective equipment as required.

P264: Wash eyes thoroughly after handling.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

P308 + P313: If exposed or concerned: get medical advice/attention.

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention.

Storage

P405: Store locked up.

Disposal

P501: Dispose of contents/container to in accordance with local regulations.

16.3. References

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 2. Denton SM (1996). Acute oral toxicity study in the rat: anhydrous boric acid. Final report. Report no.: 1341/7-1032.
 3. National Toxicology Program (NTP) – Technical Report Series No. TR324, NIH Publication No. 88 2580 (1987), PB88 213475/XAB
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 5. Heindel et al., Fund. Appl. Toxicol. (1992) 18, 266-277
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 10. Gersich, FM (1984a). Environ.Toxicol.Chem., 3 #1, 89-94 (1984)
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- For general information on the toxicology of borates see ECETOC Technical Report No. 63 (1995); Patty's Industrial Hygiene and Toxicology, 4th Edition Vol. II, (1994) Chap. 42, 'Boron'.

16.4. Disclaimer of Liability

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