

MATERIAL SAFETY DATA SHEET

[1.PRODUCT AND COMPANY IDENTIFICATION]

PRODUCT NAME : TUFTONE MHBV-1
SUPPLIER : Kao Corporation
ADDRESS : 1-3,Bunka 2-chome,Sumida-ku,Tokyo 131-8501 Japan
DIVISION : Chemical Division
TELEPHONE NUMBER : 81-3-5630-7700
FAX NUMBER : 81-3-5630-7889
EMERGENCY TELEPHONE : 81-3-5630-7700
NUMBER

[2.COMPOSITION/INFORMATION ON INGREDIENTS]

SUBSTANCE OR PREPARATION : Preparation
INGREDIENTS AND
CONCENTRATION RANGE :

Ingredients	Concentration Range(%)	CAS RN
Yellow Toner		

INGREDIENTS CONTRIBUTING TO : None
THE HAZARD(JAPAN)

[3.HAZARDS IDENTIFICATION]

MOST IMPORTANT HAZARDS :
ADVERSE HUMAN HEALTH EFFECTS : To the best of our investigation, no special hazards have to be mentioned.
ENVIRONMENTAL EFFECTS : To the best of our investigation, no information about adverse effect in the environment available.
PHYSICAL AND CHEMICAL HAZARDS : This material is not dangerous in case of usual handling.
CLASS NAME FOR MSDS IN JAPAN : Not applicable

[4.FIRST-AID MEASURES]

IN CASE OF INHALATION : Remove person to fresh air. If necessary seek medical attention.
IN CASE OF SKIN CONTACT : Wash material off the skin with plenty of water and soap. If necessary seek medical attention.
IN CASE OF EYE CONTACT : Immediately hold eyelids open and flush with a stream of water for at least 15 minutes. If necessary seek medical attention.
IN CASE OF INGESTION : Seek medical attention. Never give anything by mouth to an unconscious person. If possible, rinse out mouth and give one or two glasses of water or milk to drink.

[5.FIRE-FIGHTING MEASURES]

EXTINGUISHING MEDIA : Water spray, powder
NOT SUITABLE EXTINGUISHING MEDIA : No information available
SPECIFIC HAZARDS : May produce irritating or toxic gases in a fire.
SPECIFIC METHODS : Keep away from sources of ignition and use appropriate extinguishing media.Fight fire from upwind position if possible.
PROTECTION OF FIREFIGHTERS : Use goggles in combination with dust mask, and another protections as appropriate to situation.

[6.ACCIDENTAL RELEASE MEASURES]

- PERSONAL PRECAUTIONS : Use mask, goggles and protective gloves.
Large spills : Remove person to safety.
Ensure adequate ventilation.
Treat from upwind position.
- ENVIRONMENTAL PRECAUTIONS : Do not discharge into the drains, surface waters or ground water directly.
- METHODS FOR CLEANING UP : Sweep or vacuum spills.
Prevent dispersion of dust.
- PREVENTION OF SECONDARY HAZARDS : No information available

[7.HANDLING AND STORAGE]

HANDLING

- TECHNICAL MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- PRECAUTIONS : Avoid inhalation of fine dust .
- SAFE HANDLING ADVICE : Handle in well-ventilated areas.
Use safety glasses and protective gloves as appropriate to situation.
Wash hands and face and gargle after handling.
Prevent generation of dust.

STORAGE

- STORAGE CONDITIONS : Keep container tightly closed.
Protect from sun. Store in a well-ventilated room (under 40 C).
- PACKAGING MATERIALS : No information available

[8.EXPOSURE CONTROLS/PERSONAL PROTECTION]

- ENGINEERING MEASURES : Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
Use an adequate ventilation.
Use local exhaust ventilation, in case of generation of dust.

LIMIT VALUES

- ACGIH(TLV) : TWA 3mg/m3(respirable particulate)
TWA 10mg/m3(inhalable particulate)(Particulates Not Otherwise Classified)
- OSHA(PEL) : Not established

PERSONAL PROTECTIVE EQUIPMENT

- RESPIRATORY PROTECTION : Use dust mask, as appropriate to situation.
- HAND PROTECTION : Rubber gloves
- EYE PROTECTION : Safety glasses with side shield(Safety goggles or Face shield)
- SKIN AND BODY PROTECTION : Full-body suit
- HYGIENE MEASURES : No information available

[9.PHYSICAL AND CHEMICAL PROPERTIES]

PHYSICAL STATES

- FORM : Pulverizing powder
- COLOUR : Yellow
- ODOUR : Odourless
- pH : No data available

SPECIFIC TEMPERATURES/TEMPERATURE RANGES AT WHICH CHANGES IN PHYSICAL STATE OCCUR

- BOILING POINT : No data available
- MELTING POINT : No data available
- DECOMPOSITION TEMPERATURE : No data available

FLASH POINT	: Not applicable
AUTOIGNITION TEMPERATURE	: No data available
EXPLOSION PROPERTIES	
EXPLOSION	: UPPER LIMIT No data available LOWER LIMIT No data available
VAPOUR PRESSURE	: No data available
VAPOUR DENSITY	: No data available
DENSITY	: 1.2 g/mL (20°C) (68°F)
SOLUBILITY	
WATER SOLUBILITY	: Insoluble
SOLVENT SOLUBILITY	: Partially soluble in toluene, chloroform and tetrahydrofuran.
OCTANOL/WATER PARTITION COEFFICIENT	: No data available
OTHER DATA	: No data available

[10.STABILITY AND REACTIVITY]

STABILITY	: Stable in general.
HAZARDOUS REACTIONS	: Stable.
CONDITIONS TO AVOID	: No information available
MATERIALS TO AVOID	: No information available
HAZARDOUS DECOMPOSITION PRODUCTS	: No information available
OTHERS	: No information available

[11.TOXICOLOGICAL INFORMATION]

ACUTE TOXICITY	: Oral, rat, LD50 : > 2000 mg/kg
LOCAL EFFECTS	:
CORROSIVITY	: No information available
SKIN IRRITATION	: No information available
EYE IRRITATION	: No information available
SENSITIZATION	: No information available
CHRONIC TOXICITY/LONG TERM TOXICITY	: No information available
CARCINOGENICITY	: No information available
IARC	: Group3,(2003 year edition) Titanium dioxide Group 3,(2003 year edition) Amorphous Silica
NTP	: Not established
OSHA	: Not established
MUTAGENICITY	: Ames test (Salmonella typhimurium TA98,TA100,TA1535,TA1537,TA1538, Escherichia coli WP2uvrA) : Negative
TERATOGENICITY	: No information available
REPRODUCTION TOXICITY	: No information available
OTHER DATA	: No information available

[12.ECOLOGICAL INFORMATION]

MOBILITY	: No information available
PERSISTENCE/ DEGRADABILITY	: No information available

BIOACCUMULATION : No information available
ECOTOXICITY :
AQUATIC TOXICITY : No information available
OTHER DATA : No information available

[13.DISPOSAL CONSIDERATIONS]

Review "HANDLING AND STORAGE (Section 7)".
Dispose of waste(after vacuuming) in accordance with local,state, and federal regulations.

Dispose of waste in accordance with local,state and federal regulations.

[14.TRANSPORT INFORMATION]

Follow all regulations in your country or region

UN CLASS/UN NUMBER : Not applicable
PRECAUTIONS : Review "ACCIDENTAL RELEASE MEASURES (Section 6)".
Review "HANDLING AND STORAGE (Section 7)".
Ensure containers without breakage or leakage.
Ensure containers tightly fixed.
Follow all regulations in your country or region.

[15.REGULATORY INFORMATION]

Follow all regulations in your country or region

INVENTORIES : ENCS(Japan) Yes
TSCA(USA) Yes
EINECS(EU) No(ELINCS)
AICS(Australia) Yes
DSL(Canada) No
ECL(Korea) Yes
PICCS(Philippines) No

KAO Corporation is 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.

[16.OTHER INFORMATION]

REFERENCE : -Safety data sheet for chemical products - Part 1: Content and order of sections(ISO 11014-1)
-International Chemical Safety Cards(ICSC) (Compiler's Guide)(1994)

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