

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name: Maha™ Coalescing Solvent

Chemical name: Ester solvent

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Coalescing agent for emulsions

Uses advised against: None known.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

Maha Chemicals (Asia) Pte Ltd

51 Tuas West Drive, Singapore 638415

Tel +65 6863 1808

Fax +65 6863 1819

Emergency telephone number:

+65 6863 1808

SECTION 2: Hazards identification

Hazard Classification: The product has not been classified as hazardous according to the legislation in force.

OSHA Specified Hazards: not applicable

Hazard(s) not otherwise classified (HNOC): None known.

SECTION 3: Composition/information on ingredients

Substances / Mixtures

General information:

Chemical name	Concentration	Additional identification	Notes
2,2,4-trimethyl-1,3-pentanediol monoisobutyrate	100%	CAS-No.: 25265-77-4	

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

This substance has workplace exposure limit(s).

SECTION 4: First aid measures

Description of first aid measures

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.

Eye contact: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

Skin contact: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

Most important symptoms and effects, both acute and delayed: None known.

Indication of any immediate medical attention and special treatment needed

Hazards: None known.

Treatment: Treat symptomatically.

SECTION 5: Firefighting measures

General Fire Hazards: None known.

Extinguishing media

Suitable extinguishing media: Water spray. Dry chemical. Carbon Dioxide. Foam.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture: None known.

Advice for firefighters

Special fire fighting procedures: None known.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment.

Environmental Precautions: Avoid release to the environment.

Methods and material for containment and cleaning up: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

SECTION 7: Handling and storage:

Precautions for safe handling: No special precautions are necessary beyond normal good hygiene practices. See Section 8 of the SDS for additional personal protection advice when handling this product.

Conditions for safe storage, including any incompatibilities: Keep container closed.

Specific end use(s): Coalescing agent for emulsions, Coatings, Chemical Intermediate, Plasticizer

SECTION 8: Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Country specific exposure limits have not been established or are not applicable unless listed below.

Exposure controls

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment

General information: Eye bath. Washing facilities.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin protection

Hand Protection: It is a good industrial hygiene practice to minimize skin contact.

Other: No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	Colorless
Odor:	Slight
Odor Threshold:	No data available.
pH:	No data available.
Freezing Point:	< -70.25 °C
Boiling Point:	255 - 261.5 °C (102.4 kPa)
Flash Point:	122 °C (Setaflash Closed Cup)
Evaporation Rate:	No data available.
Flammability (solid, gas):	not applicable
Flammability Limit - Upper (%)-:	No data available.
Flammability Limit - Lower (%)-:	No data available.
Vapor pressure:	1.3 Pa (20 °C)
Vapor density (air=1):	7.5
Specific Gravity:	0.9464 (20 °C)
Solubility(ies)	
Solubility in Water:	0.5 - 3.79 g/l (25 °C)
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	log Pow: 2.34 - 3.2
Auto-ignition Temperature:	388 °C (ASTM E659)
Decomposition Temperature:	No data available.
Dynamic viscosity:	12.9 mPa.s (25 °C)
Kinematic viscosity:	13.6 mm ² /s (25 °C)
Explosive properties:	Not classified.
Oxidizing properties:	Not classified.

SECTION 10: Stability and reactivity

Reactivity:	None known.
Chemical Stability:	Stable
Possibility of Hazardous Reactions:	None known.
Conditions to Avoid:	None at ambient temperatures.
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	Carbon Dioxide. Carbon Monoxide.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation:	None known.
Ingestion:	None known.
Skin contact:	None known.
Eye contact:	None known.

Information on toxicological effects

Oral

Product:	No data available.
Specified substance(s): 2,2,4-trimethyl-1,3-pentenediol monoisobutyrate	Oral LD-50: (Rat): 6,500 mg/kg

Dermal

Product:	No data available.
Specified substance(s): 2,2,4-trimethyl-1,3-pentenediol monoisobutyrate	Dermal LD-50: (Rabbit): > 15,200 mg/kg

Inhalation

Product:	No data available.
Specified substance(s): 2,2,4-trimethyl-1,3-pentenediol monoisobutyrate	LC50 (Rat, 6 h): > 3.55 mg/l (highest concentration tested)

Repeated dose toxicity

Product:	No data available.
Specified substance(s): 2,2,4-trimethyl-1,3-pentenediol monoisobutyrate	NOAEL (Rat, by gavage, 51 d): 1,000 mg/kg

Skin Corrosion/Irritation

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate (Rabbit, 4 h): Slight

Serious Eye Damage/Eye Irritation

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate (Rabbit): Slight

Respiratory or Skin Sensitization

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate Skin Sensitization (Guinea Pig): non-sensitizing

Carcinogenicity

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate IARC Not Listed. NTP Not Listed. OSHA Not Listed.

Toxicity to reproduction

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate (Rat); NOAEL: 1,000 mg/kg; NOAEL: 1,000 mg/kg; Gavage (Oral)

Developmental toxicity

Product: No data available.

Specified substance(s):
2,2,4-trimethyl-1,3-pentenediol
monoisobutyrate Rat; NOAEL: 1,000 mg/kg; NOAEL: 300 mg/kg; Gavage (Oral)

Germ Cell Mutagenicity

In vitro

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol
monoisobutyrate

Mutagenicity - Bacterial: negative
Chromosomal aberration: negative Read-across from a similar material
Mutagenicity - Mammalian: negative Read-across from a similar material

In vivo

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol
monoisobutyrate

Mutagenicity - Mammalian oral: gavage (Mouse): negative

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

SECTION 12: Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol
monoisobutyrate

LC-50 (Fathead Minnow, 96 h): 33 mg/l

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol
monoisobutyrate

EC-50 (Water Flea, 48 h): 147.8 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: No data available.

Aquatic Invertebrates

Product: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol monoisobutyrate

ErC50 (Algae (*Pseudokirchneriella subcapitata*), 72 h): 15 mg/l

Persistence and Degradability

Biodegradation

Product: No data available.

Specified substance(s):

2,2,4-trimethyl-1,3-pentanediol monoisobutyrate

> 77 % (28 d, Ready Biodegradability: CO2 Evolution Test) Readilybiodegradable

BOD/COD Ratio

Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)

Product: No data available.

Partition Coefficient n-octanol / water (log Kow)

Product: Log Kow: 2.34 - 3.2 25 °C

Mobility in Soil: Log Koc - Log Koc: 1.5 - 2.8

Other Adverse Effects: No data available.

SECTION 13: Disposal considerations

Waste treatment methods

General information: No data available.

Disposal methods: Dispose of waste and residues in accordance with local authority requirements. Incinerate.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Class not regulated

IMDG - International Maritime Dangerous Goods Code

Class not regulated

IATA

Class not regulated

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture.:

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: noncontrolled

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

NONE

OSHA: nonhazardous

TSCA (US Toxic Substances Control Act): The intentional components of this product are listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): All intentional components of this product are listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): The intentional components of this product are listed on AICS or otherwise complies with NICNAS. Any impurities present in this product are exempt from listing.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): The intentional components of this product are listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.KE-24891

Philippines Inventory (PICCS) : The intentional components of this product are listed on the Philippine Inventory or otherwise comply with PICCS.

Inventory of Existing Chemical Substances in China: All intentional components of this product are listed on the Inventory of Existing Chemical Substances in China (IECSC).

SECTION 16: Other information



HMIS® Hazard Ratings: Health - 1, Flammability - 1, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

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Disclaimer: This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.