

Safety Data Sheet

MAPESIL AC

Safety Data Sheet dated: 06/12/2024 - version 1



1. Identification

GHS Product Identifier

Mixture identification:

Trade name: MAPESIL AC

Trade code: 90489990

Recommended use of the chemical and restrictions on use

Recommended use: Siliconic sealant

Uses advised against: Data not available.

Supplier's details

Company: PT Mapei Indonesia Construction Products

Jl. Meranti Blok L1 no. 6, Delta Silicon 1 Industrial Estate, Lippo Cikarang – Bekasi 17550

Phone +62 21 8990 6029 / +62 21 8991 1427 - Fax +62 21 8990 6052

Responsible: mapei@mapei.co.id

Emergency phone number

T. +62 21 89906029

2. Hazard identification

Classification of the substance or mixture

The product is not classified as dangerous according to Indonesia GHS standards, regulation "23/M-IND/PER/4/2013".

Adverse physicochemical, human health and environmental effects:

No other hazards

GHS label elements

The product is not classified as dangerous according to Indonesia GHS standards, regulation "23/M-IND/PER/4/2013".

Other hazards which do not result in a classification

No other hazards

3. Composition/information on ingredients

Substances

N.A.

Mixtures

Mixture identification: MAPESIL AC

Hazardous components within the meaning of Indonesian GHS and related classification

Qty	Name	Ident. Numb.	Classification
≥1 - <2.5 %	ethyl-triacetoxy-silane	CAS:17689-77-9 EC:241-677-4	Eye Dam. 1, H318; Acute Tox. 4, H302; Skin Corr. 1B, H314
≥1 - <2.5 %	Methylsilanetriyl triacetate	CAS:4253-34-3 EC:224-221-9	Acute Tox. 4, H302; Skin Corr. 1C, H314; Eye Dam. 1, H318
≥1 - <2.5 %	oligomeric ethyl and methyl acetoxysilanes		Skin Corr. 1B, H314; Eye Dam. 1, H318

4. First-aid measures

Description of necessary first-aid measures

In case of skin contact:

Wash with plenty of water and soap.

In case of eyes contact:

Wash immediately with water.

In case of Ingestion:

Do not induce vomiting, get medical attention showing the SDS and the hazard label.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

Most important symptoms/effects, acute and delayed

N.A.

Indication of immediate medical attention and special treatment needed, if necessary

Treatment: N.A.
(see paragraph 4.1)

5. Fire-fighting measures

Suitable extinguishing media:

Suitable extinguishing media:

Water.

Carbon dioxide (CO₂).

Extinguishing media which must not be used for safety reasons:

None in particular.

Special hazards arising from the chemical

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Hazardous combustion products: N.A.

Explosive properties: N.A.

Oxidizing properties: N.A.

Special protective equipment and precautions for fire-fighters

Use suitable breathing apparatus.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Limit leakages with earth or sand.

Methods and material for containment and cleaning up

Suitable material for taking up: absorbing material, organic, sand

Retain contaminated washing water and dispose it.

7. Handling and storage

Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

Conditions for safe storage, including any incompatibilities

Keep away from food, drink and feed.

Incompatible materials:

None in particular.

Instructions as regards storage premises:

Adequately ventilated premises.

8. Exposure controls/personal protection

Control parameters

Predicted No Effect Concentration (PNEC) values

ethyl-triacetoxy-silane Exposure Route: Fresh Water; PNEC Limit: 0,2 mg/l
CAS: 17689-77-9

Exposure Route: Marine water; PNEC Limit: 0,02 mg/l

Exposure Route: Intermittent release; PNEC Limit: 1,7 mg/l

Exposure Route: Freshwater sediments; PNEC Limit: 0,16 mg/kg

Exposure Route: Marine water sediments; PNEC Limit: 0,016 mg/kg

Exposure Route: Soil; PNEC Limit: 0,031 mg/kg

Exposure Route: Microorganisms in sewage treatments; PNEC Limit: 1 mg/l

Derived No Effect Level (DNEL) values

ethyl-triacetoxy-silane
CAS: 17689-77-9

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, local effects
Worker Industry: 32,5 mg/m³; Consumer: 10,8 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, local effects
Worker Industry: 32,5 mg/m³; Consumer: 65 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Long Term, systemic effects
Worker Industry: 25 mg/m³; Consumer: 5,1 mg/m³

Exposure Route: Human Inhalation; Exposure Frequency: Short Term, systemic effects
Worker Industry: 25 mg/m³; Consumer: 5,1 mg/m³

Exposure Route: Human Dermal; Exposure Frequency: Long Term, systemic effects
Worker Industry: 14,5 mg/kg; Consumer: 7,2 mg/kg

Exposure Route: Human Dermal; Exposure Frequency: Short Term, systemic effects
Worker Industry: 14,5 mg/kg; Consumer: 7,2 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Long Term, systemic effects
Consumer: 1 mg/kg

Exposure Route: Human Oral; Exposure Frequency: Short Term, systemic effects
Consumer: 1 mg/kg

Appropriate engineering controls

N.A.

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

Respiratory protection:

Personal Protective Equipment should comply with relevant CE standards (as EN ISO 374 for gloves and EN ISO 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.

Hands protection:

Suitable materials for safety gloves; EN ISO 374:

Polychloroprene - CR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Nitrile rubber - NBR: thickness $\geq 0,35\text{mm}$; breakthrough time $\geq 480\text{min}$.

Butyl rubber - IIR: thickness $\geq 0,5\text{mm}$; breakthrough time $\geq 480\text{min}$.

Fluorinated rubber - FKM: thickness $\geq 0,4\text{mm}$; breakthrough time $\geq 480\text{min}$.

Eye protection:

Not needed for normal use. Anyway, operate according good working practices.

Skin and body protection:

No special precaution must be adopted for normal use.

Hygiene measures

N.A.

9. Physical and chemical properties

Physical state: Liquid

Appearance and colour: paste various

Odour: Characteristic

Odour threshold: N.A.

pH: Not Relevant

Melting point / freezing point: N.A.

Initial boiling point and boiling range: N.A.

Flash point: N.A.

Evaporation rate: N.A.

Flammability (Solid, Gas) N.A.

Upper/lower flammability or explosive limits: N.A.

Vapour pressure: N.A.

Vapour density: N.A.

Relative density: 1.02 g/cm³

Solubility in water: Insoluble

Solubility in oil: soluble

Partition coefficient (n-octanol/water): N.A.

Auto-ignition temperature: 400.00 °C

Decomposition temperature: N.A.

Viscosity: 800,000.00 cPs

10. Stability and reactivity

Reactivity

Reacts with water

Chemical stability

Data not available.

Possibility of hazardous reactions

None.

Conditions to avoid

Humidity

Incompatible materials

None in particular.

Hazardous decomposition products

None.

11. Toxicological information**Information on toxicological effects**

During the use of the product it is released a small amount of acetic acid (CAS 64-19-7), that can cause mucous and skin irritation.

Toxicological Information of the Preparation

a) acute toxicity	Not classified Based on available data, the classification criteria are not met LD50 Skin Rabbit > 2009 mg/kg LD50 Oral Rat > 2000, mg/kg
b) skin corrosion/irritation	Not classified Based on available data, the classification criteria are not met Skin Irritant Skin Rabbit No
c) serious eye damage/irritation	Not classified Based on available data, the classification criteria are not met Eye Irritant Rabbit No
d) respiratory or skin sensitisation	Not classified Based on available data, the classification criteria are not met Skin Sensitization Guineapig Negative
e) germ cell mutagenicity	Not classified Based on available data, the classification criteria are not met
f) carcinogenicity	Not classified Based on available data, the classification criteria are not met
g) reproductive toxicity	Not classified Based on available data, the classification criteria are not met
h) STOT-single exposure	Not classified Based on available data, the classification criteria are not met
i) STOT-repeated exposure	Not classified Based on available data, the classification criteria are not met
j) aspiration hazard	Not classified Based on available data, the classification criteria are not met

Toxicological information on main components of the mixture:

ethyl-triacetoxy-silane	a) acute toxicity	LD50 Oral Rat > 1460 mg/kg
Methylsilanetriyl triacetate	a) acute toxicity	LD50 Oral Rat = 1600, mg/kg

12. Ecological information**Ecotoxicity**

Adopt good working practices, so that the product is not released into the environment.

Eco-Toxicological Information:

List of Eco-Toxicological properties of the product

Not classified for environmental hazards.

Based on available data, the classification criteria are not met

a) Aquatic acute toxicity : LC50 Fish > 10 mg/L 96h

a) Aquatic acute toxicity : EC50 Daphnia > 10 mg/L 48h

b) Aquatic chronic toxicity : NOEC Fish > 1 mg/L

b) Aquatic chronic toxicity : NOEC Daphnia > 1 mg/L

List of Eco-Toxicological properties of the components

Component	Ident. Numb.	Ecotox Data
ethyl-triacetoxy-silane	CAS: 17689-77-9 - EINECS: 241-677-4	a) Aquatic acute toxicity : EC50 Daphnia = 62 mg/L 48h a) Aquatic acute toxicity : LC50 Fish = 251 mg/L 96h

Persistence and degradability

Component	Persitence/Degradability:
MAPESIL AC	Non-readily biodegradable

Bioaccumulative potential

N.A.

Mobility in soil

N.A.

Other adverse effects

N.A.

13. Disposal considerations

Disposal methods

The generation of waste should be avoided or minimized wherever possible. Recover if possible.

Methods of disposal:

Disposal of this product, solutions, packaging and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor.

Do not dispose of waste into sewers.

Clean waste packaging should be recycled when possible and authorized by the authority.

Disposal considerations:

Do not allow to enter drains or watercourses.

Dispose of product according to all federal, state and local applicable regulations.

If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned.

Dispose of containers contaminated by the product in accordance with local or national legal provisions. For further information, contact your local waste authority.

Special precautions:

This material and its container must be disposed of in a safe way. Care should be taken when handling untreated empty containers.

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Empty containers or liners may retain some product residues. Do not re-use empty containers.

14. Transport information

Not classified as dangerous in the meaning of transport regulations.

UN number

N.A.

UN proper shipping name

N.A.

Transport hazard class(es)

N.A.

Packing group, if applicable

N.A.

Environmental hazards

N.A.

Special precautions for user

N.A.

Road and Rail (ADR-RID):

N.A.

ADR-Hazard identification number: NA

Air (IATA):

N.A.

Sea (IMDG):

N.A.

15. Regulatory information

Safety, health and environmental regulations specific for the product in question

This SDS and the classification of the product have been created in accordance with regulation "23/M-IND/PER/4/2013" and guidance "04/BMI/PER/1/2014".

16. Other information

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Key/legend to the abbreviations and acronyms:

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.

AND: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

ATE: Acute Toxicity Estimate

ATEmix: Acute toxicity Estimate (Mixtures)

BCF: Biological Concentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAS: Chemical Abstracts Service (division of the American Chemical Society).

CAV: Poison Center

CE: European Community

CLP: Classification, Labeling, Packaging.

CMR: Carcinogenic, Mutagenic and Reprotoxic

COD: Chemical Oxygen Demand

COV: Volatile Organic Compound

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DMEL: Derived Minimal Effect Level

DNEL: Derived No Effect Level.

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Half Maximal Effective Concentration

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances.

ES: Exposure Scenario

GefStoffVO: Ordinance on Hazardous Substances, Germany.

GHS: Globally Harmonized System of Classification and Labeling of Chemicals.

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association.

IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).

IC50: half maximal inhibitory concentration

ICAO: International Civil Aviation Organization.

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).

IMDG: International Maritime Code for Dangerous Goods.

INCI: International Nomenclature of Cosmetic Ingredients.

IRCCS: Scientific Institute for Research, Hospitalization and Health Care

KAFH: KAFH

KSt: Explosion coefficient.

LC50: Lethal concentration, for 50 percent of test population.

LD50: Lethal dose, for 50 percent of test population.

LDLo: Leathal Dose Low

N.A.: Not Applicable

N/A: Not Applicable

N/D: Not defined/ Not available

NA: Not available

NIOSH: National Institute for Occupational Safety and Health

NOAEL: No Observed Adverse Effect Level

OSHA: Occupational Safety and Health Administration

PBT: Persistent, Bioaccumulative and Toxic

PGK: Packaging Instruction

PNEC: Predicted No Effect Concentration.

PSG: Passengers

RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.

STEL: Short Term Exposure limit.

STOT: Specific Target Organ Toxicity.

TLV: Threshold Limiting Value.

TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day. (ACGIH Standard).

vPvB: Very Persistent, Very Bioaccumulative.

WGK: German Water Hazard Class.

Key literature references and sources:

None