



AS-4032 Artificial Grass Adhesive

Safety Data Sheet

according to the United Nations GHS (Rev. 10, 2023)

Issue date: 1/5/2022 Revision date: 2/24/2022 Supersedes: 1/5/2022 Version: 1.1

SECTION 1: Identification

1.1. GHS Product identifier

Product form : Mixture
Product name : AS-4032 Artificial Grass Adhesive
Product group : Trade product

1.2. Other means of identification

No additional information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use : Sealants

1.4. Supplier's details

Manufacturer

Alseal Marketing Sdn. Bhd.
Lot 53, Jalan Industri 2/2, Rawang Integrated Industrial Park,
48000 Rawang, Selangor, Malaysia.
T +603-60942088 - F +603-60992930

1.5. Emergency phone number

No additional information available

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification according to the United Nations GHS

Not classified

Adverse physicochemical, human health and environmental effects : To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice

2.2. GHS Label elements, including precautionary statements

Labelling according to the United Nations GHS

No labelling applicable

2.3. Other hazards which do not result in classification

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to the United Nations GHS
TRIMETHOXYVINYL SILANE	CAS-No.: 2768-02-7	0.1 – 1	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1B, H317

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Name	Product identifier	%	Classification according to the United Nations GHS
N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE	CAS-No.: 1760-24-3	0.1 – 1	Eye Dam. 1, H318 Skin Sens. 1, H317 STOT SE 3, H335
DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN	CAS-No.: 22673-19-4	0.1 – 1	Skin Corr. 1A, H314 Repr. 1A, H360 STOT RE 1, H372 Aquatic Chronic 4, H413

Full text of H-statements: see section 16

SECTION 4: First-aid measures

4.1. Description of necessary first-aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms/effects, acute and delayed

No additional information available

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

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam.
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5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of fire	: Toxic fumes may be released.
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5.3. Special protective actions for fire-fighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and materials for containment and cleaning up

Methods for cleaning up	: Mechanically recover the product.
Other information	: Dispose of materials or solid residues at an authorized site.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Appropriate engineering controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Environmental exposure controls	: Avoid release to the environment.

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

Hand protection	: Protective gloves
Eye protection	: Safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s)



8.4. Exposure limit values for the other components

No additional information available

SECTION 9: Physical and chemical properties

9.1. Basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste
Colour	: Green.
Odour	: odourless.
Odour threshold	: Not available
Melting point	: Not applicable
Freezing point	: Not applicable
Boiling point	: Not available
Flammability	: Non flammable.
Lower explosion limit	: Not applicable
Upper explosion limit	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: Not available
Viscosity, kinematic (calculated value) (40 °C)	: Not applicable
Partition coefficient n-octanol/water (Log Kow)	: Not available

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Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: ≈ 1.64
Relative vapour density at 20°C	: Not applicable
Solubility	: Not available
Particle size	: Not available

9.2. Data relevant with regard to physical hazard classes (supplemental)

Explosive limits	: Not applicable
VOC content	: ≈ 18.59 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)	
LD50 oral rat	2295 mg/kg
LD50 dermal	2000 mg/kg

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified

N-(3-(TRIMETHOXYSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified

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DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN (22673-19-4)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified

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Viscosity, kinematic	Not applicable
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

12.2. Persistence and degradability

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Persistence and degradability	Not rapidly degradable
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N-(3-(TRIMETHOXSILYL)PROPYL)ETHYLENEDIAMINE (1760-24-3)

Persistence and degradability	Not rapidly degradable
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DIBUTYLBIS(PENTANE-2,4-DIONATO-O,O')TIN (22673-19-4)

Persistence and degradability	Not rapidly degradable
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TRIMETHOXYVINYLSILANE (2768-02-7)

Persistence and degradability	Not rapidly degradable
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No additional information available
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12.4. Mobility in soil

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Mobility in soil	No additional information available
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12.5. Other adverse effects

Ozone : Not classified

Other adverse effects : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with UN RTDG / IMDG / IATA

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UN RTDG	IMDG	IATA
14.1. UN number		
Not applicable	Not regulated	Not regulated
14.2. UN Proper Shipping Name		
Not applicable	Not regulated	Not regulated
14.3. Transport hazard class(es)		
Not applicable	Not regulated	Not regulated
14.4. Packing group		
Not applicable	Not regulated	Not regulated
14.5. Environmental hazards		
Not applicable	Not regulated	Not regulated
No supplementary information available		

14.6. Special precautions for user

UN RTDG

Not applicable

IMDG

Not regulated

IATA

Not regulated

14.7. Transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

No additional information available

SECTION 16: Other information

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Abbreviations and acronyms : CAS-No. - Chemical Abstract Service number
ATE - Acute Toxicity Estimate
EC50 - Median effective concentration
EC-No. - European Community number
IATA - International Air Transport Association
IMDG - International Maritime Dangerous Goods
LC50 - Median lethal concentration
LD50 - Median lethal dose
LOAEL - Lowest Observed Adverse Effect Level
N.O.S. - Not Otherwise Specified
NOAEC - No-Observed Adverse Effect Concentration
NOAEL - No-Observed Adverse Effect Level
NOEC - No-Observed Effect Concentration
OEL - Occupational Exposure Limit
SDS - Safety Data Sheet

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Full text of H-statements:	
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Chronic 4	Hazardous to the aquatic environment – Chronic Hazard, Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 1A	Reproductive toxicity, Category 1A
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Sens. 1	Skin sensitisation, Category 1
Skin Sens. 1B	Skin sensitisation, category 1B
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H332	Harmful if inhaled
H335	May cause respiratory irritation
H360	May damage fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H413	May cause long lasting harmful effects to aquatic life

Safety Data Sheet (SDS), UN

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.