

1. IDENTIFICATION OF THE SUBSTRATE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Trade name/designation: Alumasc Fleece Backed Adhesive.

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

Relevant identified uses: Adhesive.

1.3 Supplier details

Alumasc Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, United Kingdom, WA9 4JG
Tel: +44 (0)1744 648400
e-mail: technical@alumascroofing.com

1.4 Emergency telephone number

Association / Organisation: National Poisons Information Service
Emergency telephone numbers: 0344 892 0111 (Healthcare professionals only)
Other emergency telephone numbers Alumasc Building Products: +44 17 4464 8400
(Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Considered a hazardous mixture according to Reg. (EC) No 1272/2008 and their amendments. Classified as Dangerous Goods for transport purposes.

Classification according to Regulation (EC) No. 1272/2008 [CLP][1]:

Skin irritation, Category 2:	315: Causes skin irritation.
Eye irritation, Category 2:	319: Causes serious eye irritation.
Respiratory sensitisation, Category 1:	334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Skin sensitisation, Category 1:	317: May cause an allergic skin reaction.
Carcinogenicity, Category 2:	351: Suspected of causing cancer.
Specific target organ toxicity - single exposure, Category 3, Central nervous system:	336: May cause drowsiness or dizziness.

2.2 Label elements

Hazard pictures:



Signal word:

Danger.

Hazard statements:

H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H336: May cause drowsiness or dizziness.
H351: Suspected of causing cancer.

Precautionary statements prevention:

P201: Obtain special instructions before use.
P261: Avoid breathing mist or vapours.
P264: Wash skin thoroughly after handling.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Precautionary statements response: P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Precautionary statements disposal: P501: Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Hazardous components which must be listed on the label:

Dichloromethane
methylenediphenyl diisocyanate.

Additional Labelling:

EUH204: Persons already sensitised to diisocyanates may develop allergic reactions when using this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product.

EUH204: Contains isocyanates. May produce an allergic reaction.
Contains isocyanates. May produce an allergic reaction.
"As from 24 August 2023 adequate training is required before industrial or professional use."

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

3.2 Mixtures

CAS No EC No Index No REACH No	Concentration (% w/w)	Name	Classified according to GB-CLP Regulation, UK SI 2019/720 and UK SI 2020/1567
75-09-2 200-838-9 602-004-00-3 4. 01-2119480404-41-0000	>= 20 - < 30%	dichloromethane	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Carc. 2; H351 STOT SE 3; H336 (Central nervous system)
26447-40-5 247-714-0 615-005-00-9 4. 01-2120770510-62-0000	>= 1 - < 5%	methylenediphenyl diisocyanate	Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 STOT SE 3 - H336 Asp. Tox. 1 - H304 Aquatic Chronic 2 - H411

For explanation of abbreviations see section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: If on clothes, remove clothes.
Move the victim to fresh air.
Show this safety data sheet to the doctor in attendance.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Eye contact:	Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.
Skin contact:	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician.
Inhalation:	Remove person to fresh air. If signs/symptoms continue, get medical attention. In case of unconsciousness bring patient into stable side position for transport.
Ingestion:	If accidentally swallowed obtain immediate medical attention. Rinse mouth with water. If conscious, drink plenty of water. Do NOT induce vomiting. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Risk:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause drowsiness or dizziness. Suspected of causing cancer.
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4.3 Indication of any immediate medical attention and special treatment needed

Notes for the Doctor:

Treatment:	No further relevant information available.
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5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Water mist

Foam

Dry powder

Carbon dioxide (CO₂)

Unsuitable extinguishing media:

Water with a full water jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting:

No further relevant information available.

5.3 Advice for fire-fighters

Special protective equipment for firefighters:

No special protective measures against fire required.

Further information:

In the event of fire, wear self-contained breathing apparatus.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Collect contaminated fire extinguishing water separately.

This must not be discharged into drains.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Remove all sources of ignition.
Use personal protective equipment.
Use breathing protection against the effects of fumes/dust/aerosol.
Evacuate personnel to safe areas.
Ensure adequate ventilation.

6.2 Environmental precautions

Environmental precautions: The product should not be allowed to enter drains, water courses or the soil.
Prevent the material from reaching sewage system, holes and cellars.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Non-sparking tools should be used.
Ensure adequate ventilation.
Send for recovery or disposal in suitable containers.
Dispose of contaminated material as waste according to section 13.

6.4 Reference to other sections

Refer to protective measures listed in sections 7 and 8., For disposal considerations see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Advice on safe handling:

Avoid formation of dust and aerosols.
Use only with adequate ventilation.
Take note of emission threshold.
Use solvent-proof equipment.
Ensure that suitable extractors are available on processing machines.
Handle with care.
Keep eye wash bottle available on working place.
Keep out of reach of children.

Advice on protection against fire and explosion:

Keep product and empty container away from heat and sources of ignition.
Do not smoke.
Take measures to prevent the build up of electrostatic charge.
May form explosive mixtures in air.
Highly volatile, flammable constituents are re-leased during processing.
In the event of fire and/or explosion do not breathe fumes.
Keep breathing equipment ready.
Have fire extinguishing equipment ready in case of nearby fire.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep dark, cool and dry. Store in cool place.

Further information on storage conditions:

Keep containers tightly closed in a dry, cool and well-ventilated place.
Store in a cool place.
Heat will increase pressure and may lead to the container exploding.

7.3 Specific end uses(s)

No further relevant information available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits:

Components	CAS-No.	Value type (Form of exposure)	Control parameters	Basis
dichloromethane	75-09-2	TWA	100 ppm 353 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned sub- stances are those for which there are concerns that dermal absorption will lead to systemic toxicity.			
		STEL	200 ppm 706 mg/m ³	GB EH40
	Further information: Can be absorbed through the skin. The assigned sub- stances are those for which there are concerns that dermal absorption will lead to systemic toxicity			
		TWA	100 ppm 353 mg/m ³	2017/164/EU
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
		STEL	200 ppm 706 mg/m ³	2017/164/EU
	Further information: Identifies the possibility of significant uptake through the skin, Indicative			
methylenediphenyl diisocyanate	26447-40-5	TWA	0,02 mg/m ³ (NCO)	GB EH40
	Further information: Capable of causing occupational asthma.			
		STEL	0,07 mg/m ³ (NCO)	GB EH40
	Further information: Capable of causing occupational asthma.			

Derived no effect level (DNEL):


Substance name	End Use	Exposure routes	Potential health effects	Value
dichloromethane	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	12 mg/kg
	Workers	Inhalation	Systemic, long-term	176 mg/m ³
	Workers	Inhalation	Systemic, short-term	132,14 mg/m ³
methylenediphenyl diisocyanate	Workers	Dermal	Acute systemic effects	50 mg/kg
	Workers	Inhalation	Acute systemic effects	0,1 mg/m ³
	Workers	Dermal	Local effects	28,7 mg/cm ²
	Workers	Inhalation	Local effects	0,1 mg/m ³
	Workers	Inhalation	Long-term systemic effects	0,05 mg/m ³
	Workers	Inhalation	Local effects	0,05 mg/m ³

Predicted no effect concentration (PNEC):

Substance name	Environmental Compartment	Value
dichloromethane	Marine water	0,031 mg/l
	Sewage treatment plant	26 mg/l
	Fresh water sediment	0,163 mg/kg
	Marine sediment	0,163 mg/kg
	Fresh water	130 µg/l
	Soil	0,173 mg/kg

Substance name	Environmental Compartment	Value
methylenediphenyl diisocyanate	Fresh water	> 1 mg/l
	Marine water	> 0,1 mg/l
	Soil	> 1 mg/kg
	Sewage treatment plant	> 1 mg/l

8.2 Exposure controls

8.2.1. Appropriate engineering controls:	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapour or mist.
8.2.2. Personal protection:	
Eye and face protection:	The following protection should be worn: Tightly fitting Chemical safety goggles equipment with better protection.
Skin protection:	Protective clothing
Hands/feet protection:	<p>The glove material has to be impermeable and resistant to the product/the substance/the preparation.</p> <p>The exact break through time can be obtained from the protective glove producer and this has to be observed.</p> <p>The gloves need to be disposed after the penetration time and replaced by new ones.</p> <p>Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work.</p> <p>For the permanent contact gloves made of the following materials are suitable: If longer exposure to the chemical preparation is necessary, a sturdy over glove against mechanical strain is recommended in combination with the Barrier 02-100 under glove from Ansell or other suppliers (penetration time: 480 min).</p> <p>For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable: Butyl rubber (minimum thickness: 0.7 mm; penetration time: 15 min)</p> <p>As protection from splashes gloves made of the following materials are suitable: Nitril (minimum thickness 0.12 mm), Disposable gloves with long cuffs</p> <p>After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.</p>
Other skin and body protection:	Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
Respiratory protection:	<p>Use respiratory protection unless adequate risk management measures (exhaust/ventilation) are provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.</p> <p>In case of brief exposure or low pollution (exceeding of TLV) use breathing filter apparatus.</p> <p>In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.</p> <p>Ensure that suitable extractors are available on processing machines.</p>
Hygiene measures:	<p>Keep away from food, drink and animal feeding stuffs.</p> <p>Instantly remove any soiled and impregnated garments.</p> <p>Wash hands before breaks and immediately after handling the product.</p> <p>Avoid contact with the eyes and skin.</p> <p>Store protective clothing separately.</p>
Environmental exposure controls:	Keep container tightly sealed when not in use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Important health, safety and environmental information

Appearance:	Liquid
Colour:	Pink
Odour:	Characteristic
Odour Threshold:	Is not determined
pH:	Is not determined
Melting point/freezing point:	Is not determined
Evaporation rate:	Is not determined
Relative vapour density:	Is not determined
Density:	1,1 g/cm ³
Solubility(ies)	
Water solubility:	Not miscible or difficult to mix
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	Is not determined
Decomposition temperature:	Not applicable
Viscosity	
Viscosity, kinematic:	>= 20,5 mm ² /s
Explosive properties:	Product is not explosive. However, formation of explosive vapour/air mixtures is possible.

9.2 Other information

No data available.

10. STABILITY AND REACTIVITY

10.1 Reactivity

No further relevant information available.

10.2 Chemical stability

No decomposition if used according to the specifications.

10.3 Possibility of hazardous reactions

Hazardous reactions: Develops readily flammable vapours/fumes.

10.4 Conditions to avoid

Conditions to avoid: No further relevant information available.

10.5 Incompatible materials

Materials to avoid: No further relevant information available.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity:

Based on available data, the classification criteria are not met.

Product:

Acute inhalation toxicity: Acute toxicity estimate: > 20 mg/l
Exposure time: 4 Hours
Test atmosphere: vapour
Method: Calculation method

Components:

dichloromethane:

Acute oral toxicity: LD50 Oral (Rat): > 2.000 mg/kg

methylenediphenyl diisocyanate:

Acute inhalation toxicity: Acute toxicity estimate: 1,5 mg/l
Test atmosphere: dust/mist
Method: Calculation method

Skin corrosion/irritation:

Causes skin irritation.

Serious eye damage/eye irritation:

Causes serious eye irritation.

Respiratory or skin sensitisation:

Skin sensitisation:

May cause an allergic skin reaction.

Respiratory sensitisation:

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity:

Not classified due to lack of data.

Carcinogenicity:

Suspected of causing cancer.

Reproductive toxicity:

Not classified due to lack of data.

STOT - single exposure:

May cause drowsiness or dizziness.

STOT - repeated exposure:

Not classified due to lack of data.

Aspiration toxicity:

Not classified due to lack of data.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Components:

dichloromethane:

Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 140,8 - 277,8 mg/l
Exposure time: 96 Hours
Test Type: flow-through test

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

Components:

dichloromethane:

Partition coefficient: n-octanol/water: log Pow: 1,25

methylenediphenyl diisocyanate:

Partition coefficient: n-octanol/water:

log Pow: 4,5

2.4 Mobility in soil

Product:

Mobility:

Medium: Soil

Remarks: Do not allow product to reach ground water, water bodies or sewage system.

12.5 Results of PBT and vPvB assessment

Product:

Assessment:

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6. Other adverse effects

Product:

Endocrine disrupting potential:

This substance/mixture does not contain components considered to have endocrine disrupting properties for environment according to UK REACH Article 57(f).

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal considerations:	Disposal of this product and its packaging must comply with all applicable environmental protection and waste disposal legislation, including any requirements set by local authorities. Any unwanted or non-recyclable material should be disposed of through a licensed waste disposal contractor. Transportation of such waste may be subject to ADR (International Carriage of Dangerous Goods by Road) regulations and must be managed in accordance with those requirements.
Waste code:	08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances.
Special precautions:	This material and its container must be disposed of in a safe way. Caution should be exercised when handling empty containers that have not been properly cleaned or rinsed, as they may retain hazardous residues. Spillage and wash water from cleaning tools must be prevented from entering soil, watercourses, drains, or sewer systems. Empty containers should be directed to authorised waste disposal or appropriate local recycling facilities.
Further information available via:	<p>https://www.alumascroofing.com/downloads/disposal-guides/</p> 

14. TRANSPORT INFORMATION

Labels required:



14.1 UN number

ADN: UN 2810
ADR: UN 2810
RID: UN 2810
IMDG: UN 2810
IATA: UN 2810

14.2 UN proper shipping name

AND: TOXIC LIQUID, ORGANIC, N.O.S. (DICHLOROMETHANE)
ADR: TOXIC LIQUID, ORGANIC, N.O.S.
(DICHLOROMETHANE)
RID: TOXIC LIQUID, ORGANIC, N.O.S.
(DICHLOROMETHANE)
IMDG: TOXIC LIQUID, ORGANIC, N.O.S.
(DICHLOROMETHANE)
IATA: Toxic liquid, organic, n.o.s.
(Dichloromethane)

14.3 Transport hazard class(es)

AND: 6.1
ADR: 6.1
RID: 6.1
IMDG: 6.1
IATA: 6.1

14.4 Packing group

AND:

Packing group: III
Classification code: T1
Hazard identification number: 60
Labels: 6.1

ADR:

Packing group: III
Classification code: T1
Hazard identification number: 60
Labels: 6.1
Tunnel restriction code: (E)

RID:

Packing group: III
Classification code: T1
Hazard identification number: 60
Labels: 6.1

IMDG:

Packing group: III
Labels: 6.1
EmS Code: F-A, S-A

IATA (Cargo):

Packing instruction (cargo aircraft): 663
Packing instruction (LQ): Y642
Packing group: III
Labels: Toxic

IATA (Passenger):

Packing instruction (cargo aircraft): 663
Packing instruction (LQ): Y642
Packing group: III
Labels: Toxic

14.5 Environmental hazards

AND:

Environmentally hazardous: No

ADR:

Environmentally hazardous: No

RID:

Environmentally hazardous: No

IMDG:

Marine pollutant: No

14.6 Special precautions for user

The transport classification(s) provided herein are for informational purposes only and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code

Not applicable for product as supplied.

15. REGULATORY INFORMATION

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

Relevant EU provisions transposed through retained EU law:

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the following entries should be considered: Number on list 75, 3 dichloromethane methylenediphenyl diisocyanate (Number on list 74) benzoyl chloride methylenediphenyl diisocyanate (Number on list 74) 4,4'-methylenediphenyl diisocyanate (Number on list 74) 4,4'-Methylenediphenyl diisocyanate, oligomers
REACH - Candidate List of Substances of Very High Concern for Authorisation (SVHC, Article 59)	:	Not applicable
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Not applicable
RoHS: 2011/65/EU, Restriction of Hazardous Substances	:	Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors	:	Neither banned nor restricted
Council Regulation (EC) No 273/2004 on drug precursors	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances:

Not applicable.

Volatile organic compounds: Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control)
Volatile organic compounds (VOC) content: 23.2 %

The components of this product are reported in the following inventories:

TSCA:	All substances listed as active on the TSCA inventory
AIIC:	On the inventory, or in compliance with the inventory
DSL:	All components of this product are on the Canadian DSL
IECSC:	On the inventory, or in compliance with the inventory
REACH:	On the inventory, or in compliance with the inventory

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture.

16. OTHER INFORMATION

Full text risk and hazard codes:

H315:	Causes skin irritation
H317:	May cause an allergic skin reaction
H319:	Causes serious eye irritation
H332:	Harmful if inhaled
H334:	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335:	May cause respiratory irritation
H336:	May cause drowsiness or dizziness
H351:	Suspected of causing cancer
H373:	May cause damage to organs through prolonged or repeated exposure

Full text of other abbreviations:

Acute Tox.:	Acute toxicity
Carc.:	Carcinogenicity
Eye Irrit.:	Eye irritation
Resp. Sens.:	Respiratory sensitisation
Skin Irrit.:	Skin irritation
Skin Sens.:	Skin sensitisation
STOT RE:	Specific target organ toxicity - repeated exposure
STOT SE:	Specific target organ toxicity - single exposure
2017/164/EU:	Europe. Commission Directive 2017/164/EU establishing a fourth list of indicative occupational exposure limit values
GB EH40:	UK. EH40 WEL - Workplace Exposure Limits
2017/164/EU / STEL:	Short term exposure limit
2017/164/EU / TWA:	Limit Value - eight hours
GB EH40 / TWA:	Long-term exposure limit (8-hour TWA reference period)
GB EH40 / STEL:	Short-term exposure limit (15-minute reference period)

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Test-ing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regula-tion (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergen-cy Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration as-sociated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good La-boratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships car-rying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - Interna-tional Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test popula-tion; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - Interna-tional Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Ef-fect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic sub-stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quanti-tative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Re-striction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of very high concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Our company policy is one of continuous research and development; we therefore reserve the right to amend content herein without prior notice.

SDS version summary:

Version	Date of Update	Section Updated
1.0	21/10/2025	Template change

Other information:

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

Classification of the mixture:

Skin Irrit. 2: H315
Eye Irrit. 2: H319
Resp. Sens. 1: H334
Skin Sens. 1: H317
Carc. 2: H351
STOT SE 3: H336

Classification procedure:

Calculation method
Calculation method
Calculation method
Calculation method
Calculation method
Calculation method

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

