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

1.1 Product identifier

Trade name/designation: Alumasc PVC Contact 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 numbersAlumasc 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]:

Flammable liquids, Category 2:	H225: Highly flammable liquid and vapour.
Eye irritation, Category 2:	H319: Causes serious eye irritation.
Skin sensitisation, Category 1:	H317: May cause an allergic skin reaction.
Specific target organ toxicity - single exposure, Category 3, Central nervous system:	H336: May cause drowsiness or dizziness.

2.2 Label elements

Hazard pictures:

Signal word: Danger.

Hazard statements:
H225: Highly flammable liquid and vapour.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

Supplemental hazard statements: EUH066: Repeated exposure may cause skin dryness or cracking.

Precautionary statements prevention:
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P261: Avoid breathing mist.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

Precautionary statements response:	P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
Storage:	P410 + P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F.
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:
butanone
acetone
Formaldehyde, oligomeric reaction products with phenol
maleic acid

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
78-93-3 201-159-0 606-002-00-3 01-2119457290-43-0000	>= 30 - < 50	butanone	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)
67-64-1 200-662-2 606-001-00-8 01-2119471330-49-0000	>= 20 - < 30	acetone	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336 (Central nervous system)
9003-35-4 500-005-2 01-2120735197-51-0000	>= 1 - < 10	Formaldehyde, oligomeric reaction products with phenol	Skin Sens. 1; H317
9005-09-8	>= 1 - < 10	2-Butenedioic acid (2Z)-, polymer with chloroethene and ethenyl ace- tate	Skin Irrit. 2; H315 Eye Irrit. 2; H319 STOT SE 3; H335 (Respiratory sys-tem)
98-54-4 202-679-0 604-090-00-8 01-2119489419-21-0000	>= 0,1 - < 0,25	4-tert-butylphenol	Skin Irrit. 2; H315 Eye Dam. 1; H318 Repr. 2; H361f Aquatic Chronic 1; H410 M-Factor (Chronic aquatic toxicity): 1
110-16-7 203-742-5 607-095-00-3 01-2119488705-25-0000	>= 0,025 - < 0,1	maleic acid	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 STOT SE 3; H335 (Respiratory sys-tem) 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.
Call a physician if irritation develops or persists.

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: May cause an allergic skin reaction.
Causes serious eye irritation.
May cause drowsiness or dizziness.
Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the Doctor:
Treatment: No further relevant information available.

5. FIRE-FIGHTING MEASSURES

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. ACCIDENTIAL 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
butanone	78-93-3	TWA	200 ppm 600 mg/m3	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	300 ppm 899 mg/m3	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	300 ppm 900 mg/m3	2000/39/EC
	Further information: Indicative			
		TWA	200 ppm 600 mg/m3	2000/39/EC
	Further information: Indicative			
acetone	67-64-1	TWA	500 ppm 1.210 mg/m3	GB EH40
		STEL	1.500 ppm 3.620 mg/m3	GB EH40
		TWA	500 ppm 1.210 mg/m3	2000/39/EC
	Further information: Indicative			

Derived no effect level (DNEL):

Substance name	End Use	Exposure routes	Potential health effects	Value
butanone	Workers	Inhalation	Systemic, long-term	600 mg/m3
	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	1161 mg/kg
acetone	Workers	Inhalation	Local, short-term	2420 mg/m3
	Workers	Inhalation	Systemic, long-term	1210 mg/m3
	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	186 mg/kg
4-tert-butylphenol	Workers	Inhalation	Systemic, long-term	0,5 mg/m3
	Workers	Eye contact	Local effects	
	Workers	Dermal	Systemic, long-term	0,071 mg/kg

Predicted no effect concentration (PNEC):

Substance name	Environmental Compartment	Value
butanone	Predator	1000 mg/kg
	Soil	22,5 mg/kg
	Sewage treatment plant	709 mg/l
	Fresh water	55,8 mg/l
	Marine water	55,8 mg/l
	Fresh water sediment	284,74 mg/kg
	Marine sediment	284,7 mg/kg
acetone	Soil	29,5 mg/kg
	Sewage treatment plant	100 mg/l
	Fresh water	10,6 mg/l
	Fresh water sediment	30,4 mg/kg
	Marine water	1,06 mg/l
	Marine sediment	3,04 mg/kg
4-tert-butylphenol	Predator	46,67 mg/kg
	Soil	0,25 mg/kg
	Marine water	0,001 mg/l
	Marine sediment	0,027 mg/kg
	Fresh water	0,01 mg/l
	Sewage treatment plant	1,5 mg/l
	Fresh water sediment	0,27 mg/kg

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 or face shield / equipment with better protection.
Skin protection:	Protective clothing

Hands/feet protection:	The glove material has to be impermeable and resistant to the product/the substance/the preparation. The exact break through time can be obtained from the protective glove producer and this has to be observed. The gloves need to be disposed after the penetration time and replaced by new ones. Apply skin protectant before working with gloves to avoid skin swellings and use a skin cleansing and skincare product after the work. **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 recommend-ed in combination with the Barrier 02-100 under glove from Ansell or other suppliers (penetration time: 480 min). **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) **As protection from splashes gloves made of the following materials are suitable:** Nitril (minimum thickness 0.12 mm), Disposable gloves with long cuffs After contact with the chemical preparation, take the disposable nitrile glove off immediately and put on a new disposable nitrile glove.
Other skin and body protection:	Wear suitable protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
Hygiene measures:	Wash hands after handling. Keep away from food, drink and animal feeding stuffs. Instantly remove any soiled and impregnated garments. Wash hands before breaks and immediately after handling the product. Avoid contact with the eyes and skin. Store protective clothing separately.
Respiratory protection:	Use respiratory protection unless adequate risk management measures (exhaust/ ventilation) are provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines. In case of brief exposure or low pollution (exceeding of TLV) use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air. Ensure that suitable extractors are available on processing machines.
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:	Light Amber
Odour:	Characteristic
Odour Threshold:	Is not determined
pH:	Is not determined
Melting point/freezing point:	Is not determined
Boiling point/boiling range:	> 55 °C
Flash point:	-18 °C
Evaporation rate:	Is not determined
Upper explosion limit / Upper flammability limit:	13 %(V)
Lower explosion limit / Lower flammability limit:	1,8 %(V)
Relative vapour density:	Is not determined
Density:	0,83 g/cm³
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 mm2/s (40 °C)
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 decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
Not classified due to lack of data.

Components:
4-tert-butylphenol:
Acute oral toxicity: LD50 Oral (Rat): 2.990 mg/kg
Acute dermal toxicity: LD50 Dermal (Rabbit): 2.318 mg/kg

maleic acid:
Acute oral toxicity: LD50 Oral (Rat): 708 mg/kg
Acute dermal toxicity: LD50 Dermal (Rabbit): 1.560 mg/kg

Skin corrosion/irritation:
Repeated exposure may cause skin dryness or cracking.

Serious eye damage/eye irritation:
Causes serious eye irritation.

Respiratory or skin sensitisation:
Skin sensitisation:
May cause an allergic skin reaction.

Respiratory sensitisation:
Not classified due to lack of data.

Germ cell mutagenicity:
Not classified due to lack of data.

Carcinogenicity:
Not classified due to lack of data.

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:
4-tert-butylphenol:

Toxicity to fish:	LC50 (Pimephales promelas (fathead minnow)): 4,71 - 5,62 mg/l Exposure time: 96 Hours Test Type: flow-through test
Toxicity to daphnia and other aquatic invertebrates:	EC50 (Daphnia magna (Water flea)): 3,4 - 4,5 mg/l Exposure time: 48 Hours Test Type: static test
Toxicity to algae/aquatic plants:	EC50 (Desmodesmus subspicatus (green algae)): 11,2 mg/l Exposure time: 72 Hours Test Type: flow-through test
M-Factor (Chronic aquatic toxicity):	1

maleic acid:

Toxicity to fish:	LC50 (Pimephales promelas (fathead minnow)): 5 mg/l Exposure time: 96 Hours Test Type: static test

12.2 Persistence and degradability

No data available.

12.3 Bioaccumulation potential

Components:
butanone:
Partition coefficient: n-octanol/water: log Pow: 0,29

acetone:
Partition coefficient: n-octanol/water: log Pow: -0,24

12.4 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 contains 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:	https://www.alumascroofing.com/downloads/disposal-guides/

14. TRANSPORT INFORMATION

Labels required:

14.1 UN number

ADN: UN 1133
ADR: UN 1133
RID: UN 1133
IMDG: UN 1133
IATA: UN 1133

14.2 UN proper shipping name

AND:	ADHESIVES
ADR:	ADHESIVES
RID:	ADHESIVES
IMDG:	ADHESIVES
IATA:	Adhesives

14.3 Transport hazard class(es)

AND:	3
ADR:	3
RID:	3
IMDG:	3
IATA:	3

14.4 Packing group

AND:

Packing group:	II
Classification code:	F1
Hazard identification number:	33
Labels:	3

ADR:

Packing group :	II
Classificationcode :	F1
Hazard identification number:	33
Labels:	3
Tunnel restriction code:	(D/E)
Remarks:	This product is eligible to ship using the Limited Quantity exception when packed in inner packaging with a maximum content of 5 liters and outer packaging up to 30 kg

RID:

Packing group :	II
Classification code:	F1
Hazard identification number:	33
Labels:	3

IMDG:

Packing group:	II
Labels:	3
EmS code:	F-E, S-D

IATA (Cargo):

Packing instruction (cargo aircraft):	353
Packing instruction (LQ):	Y341
Packing group:	II
Labels:	Flammable Liquids

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.

14.8. Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Not applicable.

14.9. Transport in bulk in accordance with the ICG Code

Not applicable.

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) butanone acetone xylenes 4-tert-butylphenol 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (Number on list 30) vinyl acetate maleic acid chloroethylene (Number on list 28, 2) formaldehyde xylenes chloroethylene (Number on list 28, 2) formaldehyde
REACH - Candidate List of Substances of Very High Concern for Authorisation (SVHC, Article 59)	:	Compliant
Regulation (EU) No 2024/590 on substances that deplete the ozone layer	:	Compliant
Regulation (EU) 2019/1021 on persistent organic pollutants (recast)	:	Compliant
RoHS: 2011/65/EU, Restriction of Hazardous Substances	;	Compliant
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
Regulation (EU) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals	:	Not applicable
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors	:	acetone
UK REACH List of substances subject to authorisation (Annex XIV)	:	Compliant

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

P5c:	FLAMMABLE LIQUIDS
Volatileorganic 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: 74,3 %

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
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:

H225:	Highly flammable liquid and vapour
H302:	Harmful if swallowed
H312:	Harmful in contact with skin
H315:	Causes skin irritation
H317:	May cause an allergic skin reaction
H318:	Causes serious eye damage
H319:	Causes serious eye irritation
H335:	May cause respiratory irritation
H336:	May cause drowsiness or dizziness
H361f:	Suspected of damaging fertility
H410:	Very toxic to aquatic life with long lasting effects
H411:	Toxic to aquatic life with long lasting effects

Full text of other abbreviations:

Acute Tox.:	Acute toxicity
Aquatic Chronic:	Long-term (chronic) aquatic hazard
Eye Dam.:	Serious eye damage
Eye Irrit.:	Eye irritation
Flam. Liq.:	Flammable liquids
Repr.:	Reproductive toxicity
Skin Irrit.:	Skin irritation
Skin Sens.:	Skin sensitisation
STOT SE:	Specific target organ toxicity - single exposure
2000/39/EC:	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
GB EH40:	UK. EH40 WEL - Workplace Exposure Limits
2000/39/EC / TWA:	Limit Value - eight hours
2000/39/EC / STEL:	Short term exposure limit
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

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:		**Classification procedure:**
Flam. Liq. 2:	H225	Based on product data or assessment
Eye Irrit. 2:	H319	Calculation method
Skin Sens. 1:	H317	Calculation method
STOT SE 3:	H336	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.

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