

1. Identification of the substrate/preparation and of the company/undertaking

1.1. Product identifier

Trade name/designation : CALTECH Alpha

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

Main use category : Industrial uses

1.3. Manufacturer/Supplier

Supplier:
Alumasc Exterior Building Products Ltd
White House Works, Bold Road, Sutton, St Helens, Merseyside, WA9 4JG. United Kingdom
Tel: +44 (0)1744 648400 E-mail: roofing@alumasc-exteriors.co.uk

1.4. Emergency telephone number

Emergency telephone : Alumasc 01744 648 400
(Mon-Thur - 08.30-17.00 Fri - 08.30-16.00)

2. Hazards identification

2.1 Classification of the substance or mixture

Product definition: Mixture

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

Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Acute aquatic toxicity, Category 1	H400: Very toxic to aquatic life.
Chronic aquatic toxicity, Category 3	H412: Harmful to aquatic life with long lasting effects.

See Section 16 for the full text of the H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

2.2. Labelling according to Regulation (EU) 1272/2008

Hazard pictograms



Signal word

: Warning

Hazard statements

: H317 May cause an allergic skin reaction.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

: P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ eye protection/ face protection.

Response

: P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P391 Collect spillage.

Hazardous components which must be listed on the label:

Hardener MTJ (Polyoxypropylenetri(morpholinoaldimine))
Hardener MI (Isophoronedim(morpholinoaldimine))
931-312-3 Isophorondiisocyanate homopolymer
223-861-6 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate
Pentamethyl piperidylsebacate
224-518-3 4-morpholinecarbaldehyde
264-843-8 4,5-dichloro-2-octyl-2H-isothiazol-3-one

Additional Labelling:

EUH204

Contains isocyanates. May produce an allergic reaction.

2.3 Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

3. Composition and information about the components

3.1. Substance

Mixture

3.2. Mixture

Chemical name CAS-No. EC-No. Registration number	Classification (REGULATION (EC) No 1272/2008)	Concentration [%]
Diphenyl tolyl phosphate MCS 907-387-3 01-2119511174-52-XXXX	Aquatic Acute1; H400 Aquatic Chronic3; H412	>= 10 - < 20
propylene carbonate 108-32-7 203-572-1 01-2119537232-48-XXXX	Eye Irrit.2; H319	>= 5 - < 10
Hardener MTJ (Polyoxypropylenetri(morpholinoaldimine)) 1379822-00-0 01-2120039480-63-XXXX	Skin Sens.1B; H317 Aquatic Chronic2; H411	>= 5 - < 10
Hardener MI (Isophoronedimorpholinoaldimine) 1217271-02-7 01-2119941782-33-XXXX Contains: 2,2-Dimethyl-3-(4-morpholinyl)propanal <= 7 %	Skin Irrit.2; H315 Skin Sens.1; H317 Aquatic Chronic3; H412	>= 2,5 - < 5
Isophorondiisocyanate homopolymer 53880-05-0 931-312-3 500-125-5 01-2119488734-24-XXXX Contains: 3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate <= 0,49%	Skin Sens.1; H317 STOT SE3; H335	>= 2,5 - < 5
Hydrocarbons, C9, aromatics 64742-95-6 918-668-5 265-199-0 01-2119455851-35-XXXX	Flam. Liq.3; H226 STOT SE3; H335, H336 Asp. Tox.1; H304 Aquatic Chronic2; H411	>= 0,25 - < 0,5
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate 4098-71-9	Acute Tox.1; H330 Skin Irrit.2; H315 Eye Irrit.2; H319	>= 0,25 - < 0,5

223-861-6 01-2119490408-31-XXXX	Resp. Sens.1; H334 Skin Sens.1; H317 STOT SE3; H335 Aquatic Chronic2; H411	
Hydrocarbons, C10, aromatic, >1% Naphthalene 64742-94-5 919-284-0 265-198-5 01-2119463588-24-XXXX	STOT SE3; H336 Aquatic Chronic2; H411 Asp. Tox.1; H304	>= 0,25 - < 1
Pentamethyl piperidylsebacate 01-2119491304-40-XXXX Contains: bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate methyl 1,2,2,6,6-pentamethyl-4- piperidyl sebacate	Skin Sens.1A; H317 Aquatic Acute1; H400 Aquatic Chronic1; H410	>= 0,25 - < 1
4-morpholinecarbaldehyde 4394-85-8 224-518-3 01-2119987993-12-XXXX	Skin Sens.1; H317	>= 0,1 - < 1
4,5-dichloro-2-octyl-2H-isothiazol-3-one 64359-81-5 264-843-8	Acute Tox.4; H302 Acute Tox.2; H330 Skin Corr.1B; H314 Skin Sens.1A; H317 Aquatic Acute1; H400	>= 0,1 - < 0,25

See Section 16 for the full text of the H statements declared above.

4. First-aid measures

4.1 Description of first aid measures

- General : Move out of dangerous area.
Consult a physician.
Show this safety data sheet to the doctor in attendance.
- Eye contact : Remove contact lenses.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- Inhalation : Move to fresh air.
Consult a physician after significant exposure.

Skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.
If symptoms persist, call a physician.

Ingestion : Do not induce vomiting without medical advice.
Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : Allergic reactions
See Section 11 for more detailed information on health effects and symptoms.

Risks : Sensitising effects
May cause an allergic skin reaction.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. Fire-fighting measures

5.1 Extinguishing media

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

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting : Do not use a solid water stream as it may scatter and spread fire

Hazardous combustion products : No hazardous combustion products are known

5.3 Advice for firefighters

Special protective equipment for fire-fighters : In the event of fire, wear self-contained breathing apparatus.

Additional information : Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.
Deny access to unprotected persons.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and materials 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).
Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Do not breathe vapours or spray mist. Avoid exceeding the given occupational exposure limits (see section 8). Do not get in eyes, on skin, or on clothing. For personal protection see section 8. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Smoking, eating and drinking should be prohibited in the application area. Follow standard hygiene measures when handling chemical products

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in accordance with local regulations.

Other data : No decomposition if stored and applied as directed.

7.3 Specific end use(s)

Specific use(s) : No data available

8. Exposure controls/personal protection

8.1 Control parameters

Components with workplace control parameters

Components	CAS-No.	Value	Control parameters *	Basis *
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	TWA	0,02 mg/m ³	GB EH40
		STEL	0,07 mg/m ³	GB EH40

Biological occupational exposure limits

Substance name	CAS-No.	Control parameters	Sampling time	Basis
3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate	4098-71-9	urinary diamine: 1µmol/mol creatinine (Urine)	Post task	GB EH40 BAT

8.2 Exposure controls

Personal protective equipment

Eye protection : Safety glasses with side-shields conforming to EN166
Eye wash bottle with pure water

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard must be worn at all times when handling chemical products. Reference number EN 374. Follow manufacturer specifications.

Suitable for short time use or protection against splashes:

Butyl rubber/nitrile rubber gloves (0,4 mm),
Contaminated gloves should be removed.
Suitable for permanent exposure:
Viton gloves (0.4 mm),
breakthrough time >30 min.

- Skin and body protection : Protective clothing (e.g. Safety shoes acc. to EN ISO 20345, long-sleeved working clothing, long trousers). Rubber aprons and protective boots are additionally recommended for mixing and stirring work.
- Respiratory protection : Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
organic vapor (Type A) and particulate filter
A1: < 1000 ppm; A2: < 5000 ppm; A3: < 10000 ppm
Ensure adequate ventilation. This can be achieved by local exhaust extraction or by general ventilation. (EN 689 - Methods for determining inhalation exposure). This applies in particular to the mixing / stirring area. In case this is not sufficient to keep the concentrations under the occupational exposure limits then respiration protection measures must be used.
- Environmental exposure controls
- General advice : Do not flush into surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	grey
Odour	:	mild
Odour Threshold	:	No data available
Flash point	:	150 °C
Ignition Temperature	:	Not Applicable
Lower explosion limit (Vol-%)	:	No data available
Upper explosion limit (Vol-%)	:	No data available
Flammability	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available
pH	:	Note: Not Applicable
Melting point/range / Freezing point	:	No data available
Boiling point/boiling range	:	No data available

Vapour pressure	:	No data available
Density	:	ca.1,42 g/cm ³ at 20 °C
Water solubility	:	insoluble
Partition coefficient: noctanol /water	:	No data available
Viscosity, dynamic	:	4.000 mPa.s
Viscosity, kinematic	:	>220,5 mm ² /s at 40 °C
Relative vapour density	:	No data available
Evaporation rate	:	No data available

9.2 Other information

No additional information.

10. Stability and reactivity

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

The product is chemically stable.

10.3 Possibility of hazardous reactions:

Hazardous reactions : Stable under recommended storage conditions.

10.4 Conditions to avoid:

Conditions to avoid : No data available

10.5 Incompatible materials:

Materials to avoid : No data available

10.6 Hazardous decomposition products:

Under normal conditions of storage and use, hazardous decomposition products should not be produced. If involved in a fire, toxic gases including CO, CO₂ and smoke can be generated.

11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Components:

Diphenyl tolyl phosphate MCS:

Acute oral toxicity : LD50 Oral (Rat): > 5.000 mg/kg
Acute dermal toxicity : LD50 Dermal (Rat): > 2.000 mg/kg

Hardener MTJ (Polyoxypropylenetri(morpholinoaldimine)):

Acute oral toxicity : LD50 Oral (Rat): > 2.001 mg/kg

Hardener MI (Isophoronedim(morpholinoaldimine)):

Acute oral toxicity : LD50 Oral (Rat): > 2.001 mg/kg

Hydrocarbons, C9, aromatics:

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

3-isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate:

Acute oral toxicity : LD50 Oral (Rat): 4.814 mg/kg
Acute inhalation toxicity : LC50 (Rat): 0,031 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Acute dermal toxicity : LD50 Dermal (Rat): > 7.000 mg/kg

Pentamethyl piperidylsebacate:

Acute oral toxicity : LD50 Oral (Rat): 3.230 mg/kg

4,5-dichloro-2-octyl-2H-isothiazol-3-one:

Acute oral toxicity : LD50 Oral (Rat): 1.636 mg/kg
Acute inhalation toxicity : LC50 (Rat): 0,26 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Skin corrosion/irritation

Not classified based on available information.

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: May cause an allergic skin reaction.

Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Aspiration toxicity

Not classified based on available information.

12. Ecological information

12.1 Toxicity

Components:

Hardener MTJ (Polyoxypropylenetri(morpholinoaldimine)) :

Toxicity to daphnia and other aquatic invertebrates : EC50: 45,1 mg/l, 48 h, Daphnia magna (Water flea)

: NOEC: 12,5 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae : EC50: 1,56 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae)

Hardener MI (Isophoronedimorpholinoaldimine) :

Toxicity to daphnia and other aquatic invertebrates : EC50: 40,2 mg/l, 48 h, Daphnia magna (Water flea)

: NOEC: 17,1 mg/l, 48 h, Daphnia magna (Water flea)

Toxicity to algae : EC50: 89 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae)

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : EC50: 40,2 mg/l, 48 h, Daphnia (water flea)

: NOEC: 17,1 mg/l, 48 h, Daphnia (water flea)

Hydrocarbons, C9, aromatics :

Toxicity to algae : 2,6 - 2,9 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae)

Pentamethyl piperidylsebacate :

Toxicity to fish : LC50: 0,97 mg/l, 96 h, Fish

4,5-dichloro-2-octyl-2H-isothiazol-3-one :

Toxicity to fish : LC50: 0,0027 mg/l, 96 h, Fish

M-Factor : 100

12.2 Persistence and degradability

No data available

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

No data available

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

No data available




13. Disposal considerations

13.1 Waste treatment methods

Product : The generation of waste should be avoided or minimized wherever possible.
Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.
Disposal of this product, solutions 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.
Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Contaminated packaging : 15 01 10* packaging containing residues of or contaminated by dangerous substances

14. Transport information

	ADR/RID	IMDG	IATA
14.1 UN number	UN3082	UN3082	UN3082
14.2 UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s. (diphenyl tolyl phosphate, triphenyl phosphate)	Environmentally hazardous substance, liquid, n.o.s. (diphenyl tolyl phosphate, triphenyl phosphate)	Environmentally hazardous substance, liquid, n.o.s. (diphenyl tolyl phosphate, triphenyl phosphate)
14.3 Transport hazard class(es)	9. 	9. 	9. 
14.4 Packing group	III	III	III
14.5 Environmental hazards	Yes.	Yes.	Yes.
Additional information	Classification Code : M6 Labels : 9 ADR Tunnel code: (E)	Emergency schedules (EmS): F-A + S-F Marine pollutant (P) Yes Labels : 9	Labels : 9

14.6 Special precautions for user

IMDG: For Limited Quantity special provisions reference IMDG Code Chapter 3.4

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

15. Regulatory information

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

Prohibition/Restriction

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Not applicable

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59). : None of the components are listed (= 0.1 %).

REACH - List of substances subject to authorisation (Annex XIV) : Not applicable

REACH Information : All substances contained in our Products are
- preregistered or registered by our upstream suppliers, and/or
- preregistered or registered by us, and/or
- excluded from the regulation, and/or
- exempted from the registration.

VOC-CH (VOCV) : 3,11 %
VOC-EU (solvent) : 12,15 %

If other regulatory information applies that is not already provided elsewhere in the Safety Data Sheet, then it is described in this subsection.

Health, safety and environmental regulation/legislation specific for the substance or mixture: : The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002
Control of Substances Hazardous to Health Regulations 2002
The Management of Health and Safety at Work Regulations 1999
Health and Safety at Work Act 1974
Environmental Protection Act 1990 & Subsidiary Regulations

15.2 Chemical safety assessment

This product contains substances for which Chemical Safety Assessments are still required.

16. Other information

Full text of H-Statements

H226 : Flammable liquid and vapour.
H302 : Harmful if swallowed.
H304 : May be fatal if swallowed and enters airways.
H314 : Causes severe skin burns and eye damage.
H315 : Causes skin irritation.
H317 : Causes serious eye irritation.
H319 : Causes serious eye irritation.
H330 : Fatal 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.
H400 : Very toxic to aquatic life.
H410 : Very toxic to aquatic life with long lasting effects.
H411 : Toxic to aquatic life with long lasting effects.
H412 : Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. Acute toxicity

Aquatic Acute	Acute aquatic toxicity
Aquatic Chronic	Chronic aquatic toxicity
Asp. Tox.	Aspiration hazard
Eye Irrit.	Eye irritation
Flam. Liq.	Flammable liquids
Resp. Sens.	Respiratory sensitisation
Skin Corr.	Skin corrosion
Skin Irrit.	Skin irritation
Skin Sens.	Skin sensitisation
STOT SE	Specific target organ toxicity - single exposure
ADR	Accord européen relatif au transport international des marchandises Dangereuses par Route
CAS	Chemical Abstracts Service
DNEL	Derived no-effect level
EC50	Half maximal effective concentration
GHS	Globally Harmonized System
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LD50	Median lethal dosis (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals)
LC50	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period)
MARPOL	International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978
OEL	Occupational Exposure Limit
PBT	Persistent, bioaccumulative and toxic
PNEC	Predicted no effect concentration
REACH	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency
SVHC	Substances of Very High Concern
vPvB	Very persistent and very bioaccumulative

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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