

## 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 & professional uses.  
Uses advised against: Private households, general public & consumers.

### 1.3 Manufacturer/Supplier

Supplier:  
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](mailto:technical@alumascroofing.com)

### 1.4 Manufacturer/Supplier

Emergency telephone: 01744 648 400 - (Mon-Thurs – 08.30-17.00 Fri – 08.30-16.00)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### Classification according to Regulation (EC) No. 1272/2008 (CLP):

Skin Sens. 1: H317; Aquatic Chronic 3: H412. EUH 211

May cause allergic skin reaction. Harmful to aquatic organisms with long lasting effects. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

### 2.2 Labelling according to Regulation (EC) No. 1272/2008 (CLP):

Hazard pictures:



Signal word:

Warning.

Hazard statements:

H317: May cause an allergic skin reaction.  
H412: Harmful to aquatic life with long lasting effects.

Precautionary statements:

P261: Avoid breathing vapours.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection.  
P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P333+P313: If skin irritation or rash occurs: get medical advice/attention.  
P501: Dispose of contents/container according to local regulations.

Additional labelling:

EUH211: Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

411-700-4 1,6-hexadiyl-bis[2-[2-(1-ethylpentyl)-3-oxazolidinyl]-ethyl]-carbamate.  
500-125-5 Isophorone diisocyanate homopolymer.  
206-354-4 Diuron.

### 2.3 Other hazards

This product is not identified as a PBT or vPBT substance.

### 3. COMPOSITION AND INFORMATION ABOUT THE COMPONENTS

#### 3.1 Substance

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#### 3.2 Mixture

Ingredient	Conc %	CAS No.	EC No.	REACH Reg No.	CLP Classification
1,6-hexadiyl-bis[2-[2-(1-ethylpentyl)-3-oxazolidinyl]-ethyl]-carbamate	1-5	140921-24-0	411-700-4		Skin Sens. 1: H317
Titanium dioxide	1 - 5	13463-67-7	236-675-5	01-2119489379-17-0237	Carc. 2: H351*
Isophone diisocyanate homopolymer	0.5 - 2.0	53880-05-0	500-125-5		Skin Sens. 1: H317; STOT SE 3 H335
Reaction mass of Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-hydroxy- and Poly(oxy-1,2-ethanediyl), .alpha.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropyl]-.omega.-[3-[3-(2H-benzotriazol-2-yl)-5-(1,1-dimethylethyl)-4-hydroxyphenyl]-1-oxopropoxy]-	>0.1 - <1.0	104810-48-2	400-830-7	01-0000015075-76-0017	Skin Sens. 1A: H317; Aquatic Chronic 2; H411
Diuron (ISO)	>0.1 - <0.24	330-54-1	206-354-4		Acute Tox. 4: H302; STOT RE 2: H373; Carc. 2 H351; Acute 1: H400; Aquatic Chronic 1: H410
Diocetylfin dilaurate	>0.1 - <0.25	3648-18-8	222-883-3	01-2119979527-19-0000	STOT RE 1: H372; Repr. 1B: H360D

\*Note: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1% or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ .

**This classification does not apply to liquid mixtures.**

### 4. DESCRIPTION OF FIRST AID MEASURES

#### 4.1 Description of first aid measures

General advice:	If possible, remove affected person from source of contamination. Symptoms of poisoning may even occur after several hours; therefore, medical observation for at least 48 hours after the accident.
Inhalation:	Provide fresh air in a comfortable upright sitting position. Get medical attention if any discomfort continues. If breathing is difficult oxygen may be administered by properly trained personnel. Perform artificial respiration if breathing has stopped.
Skin contact:	Remove contaminated clothing unless stuck to skin and wash skin with copious amounts of soap and water. Get medical attention if discomfort continues.
Eye contact:	Check/remove any contact lenses from the eyes before rinsing. Wash eyes with plenty of water for at least 15 minutes and get medical attention if symptoms persist.
Ingestion:	Do not induce vomiting. Loosen tight clothing, rinse mouth and provide fresh air. Seek medical attention immediately.

#### 4.2 Most important symptoms and effects, both acute and delayed

Not expected to present a significant hazard under anticipated conditions of normal use.

#### 4.3 Indication of any immediate medical attention and special treatment needed

Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media:**

CO<sub>2</sub>, foam, dry powder. Use extinguishing media for the appropriate situation.

**Unsuitable extinguishing media:**

Water, high volume water jet.

#### 5.2 Special hazards arising from the substance or mixture

Due to excessive heat/pressure build up closed containers can burst when heated. May ignite at high temperature. When heated to decomposition, may release vapours/gases that may be hazardous: Carbon Dioxide, Carbon Monoxide, Nitrous Oxides and Phosphorus Oxides.

#### 5.3 Advice for fire-fighters

Remove containers away from fire and water cool.  
Use appropriate protective clothing and an approved respirator during firefighting.

### 6. ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

When cleaning a spillage outside normal working area, wear suitable protective clothing such as nitrile gloves and suitable goggles. Avoid contact with skin and eyes. Provide adequate ventilation. In an unventilated or tightly confined space respiratory protection must be used if the general level exceeds the Recommended Workplace Exposure Limit. (WEL).

#### 6.2 Environmental precautions

Do not allow product to enter drains.  
In case of any contamination of watercourses, contact relevant authorities.

#### 6.3 Methods and materials for containment and cleaning up

In the first instance make efforts to contain the spilled material. Collect spillage using an inert absorbent material, place in containers suitable for disposal, seal securely and deliver for disposal in accordance with local regulations.

#### 6.4 Reference to other sections

Personal protection covered in Section 8.

### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Always observe good industrial hygiene practices. Avoid contact with skin, eyes and clothing. Avoid breathing vapours and spray mists. Under normal working conditions, respiratory protection should not be necessary. However, in confined spaces without adequate ventilation, a suitable filter mask may be required.  
When using, do not consume food, drink or smoke. Remove contaminated clothing.

#### 7.2 Conditions for safe storage, including any incompatibilities

Store in the tightly closed original container in a dry place. Protect from frost and direct sunlight. Store at temperature between 5 - 25°C.

### 7.3 Specific end use(s)

No specific data available.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 Control parameters

#### Workplace Exposure Limits (WEL) GB EH40:

Ingredient	Time Weighted Average (TWA) 8 Hours		Short Term Exposure Limit (STEL) 15 Mins	
Isophorone diisocyanate	0.02mg/m <sup>3</sup>		0.07mg/m <sup>3</sup>	
<b>Derived No Effect Level (DNEL) Workers</b>				
<b>For Isophorone diisocyanate:</b>				
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Inhalation	0.58mg/m <sup>3</sup>	N/A	0.29mg/m <sup>3</sup>	N/A
Dermal	Not applicable			
Oral	Not applicable			
<b>For Titanium dioxide:</b>				
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required			
Inhalation	289 mg/m <sup>3</sup>	289 mg/m <sup>3</sup>	N/A	77 mg/m <sup>3</sup>
Dermal	Not applicable			180 mg/kg
<b>For EC 500-125-5:</b>				
Route of exposure	Acute effect local	Acute effects systemic	Chronic effects local	Chronic effects systemic
Oral	Not required			
Inhalation	Not applicable			0.35 mg/m <sup>3</sup>
Dermal	Not applicable			0.5 mg/kg
<b>Predicted No Effect Concentration (PNEC)</b>				
<b>For Titanium dioxide:</b>				
Fresh water	0.127 mg/L			
Marine water	1 mg/L			
Intermittent releases	0.61 mg/L			
Sewage treatment plant (STP)	100 mg/L			
Fresh water sediment	1000 mg/kg dry weight (d.w.)			
Marine sediment	100 mg/kg dry weight (d.w.)			
Soil	100 mg/kg			
Oral (secondary poisoning)	1667 mg/kg food			
<b>For Isophorone diisocyanate:</b>				
Fresh water	0.0015 mg/l			
Marine water	0.00015 mg/l			
Intermittent releases	0.327mg/l			
Sewage treatment plant (STP)	100 mg/l			
Fresh water sediment	N/A			
Marine sediment	N/A			
Soil	N/A			
<b>For EC 500-125-5:</b>				
Fresh water	0.0023 mg/L			
Marine water	0.00023 mg/L			
Intermittent releases	0.028 mg/L			
Sewage treatment plant (STP)	10 mg/L			
Fresh water sediment	3.06 mg/kg dry weight (d.w.)			
Marine sediment	0.306 mg/kg dry weight (d.w.)			
Soil	2 mg/kg			

### 8.2 Exposure controls

#### Appropriate engineering controls:

In enclosed areas use local exhaust ventilation, or similar engineering controls to ensure vapours remain below occupational exposure limits.

### Personal protective equipment:

Eye protection:	Wear safety glasses with side-shields. Personal protective equipment for eye and face protection should comply with European Standard EN166.
Skin protection:	Wear protective gloves made of the following material: Nitrile rubber. Polyvinyl alcohol (PVA). Viton rubber (fluoro rubber). To protect hands from chemicals, gloves should comply with European Standard EN374. The glove material must be impermeable and resistant to the product. Test the durability of the gloves before use. Protective gloves should be replaced at first signs of wear. Protective clothing to include safety shoes, long-sleeved working clothing, long trousers.
Respiratory protection:	Under normal working conditions, respiratory protection should not be necessary. However, in confined spaces, where there is a risk of pollution above the WEL limit, a suitable filter mask may be required.

### Environmental exposure controls:

Avoid release to the environment. Do not allow product to enter drains. In case of any contamination of watercourses, contact relevant authorities.  
See also measures detailed in Sections 6 & 7.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	Pigmented thixotropic liquid.
Odour:	Mild solvent.
Odour threshold:	No data available.
Ph:	Not applicable.
Melting point/freezing point:	Not applicable.
Boiling point/range:	>130 (°C).
Flash point:	66 (°C) (closed cup).
Evaporation rate:	Not applicable
Flammability:	Not classified as flammable.
Upper explosion limit:	10.8% (V).
Lower explosion limit:	1% (V).
Vapour density (air = 1):	>1.
Relative density:	~1.48.
Solubility in H2O:	Insoluble and immiscible.
Partition co-efficient:	Not applicable.
Auto-ignition temperature:	>430 (°C).
Decomposition temperature:	Not applicable.
Viscosity:	>5000mPas.
Explosive properties:	Not classified based on current information.
Oxidising properties:	Not classified based on current information.

### 9.2 Other information

No data available.

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

No hazardous reactions under normal conditions of use.

### 10.2 Chemical stability

This product is extremely stable under normal temperature conditions.

### 10.3 Possibility of hazardous reactions

No hazardous reactions under normal conditions of use.

#### 10.4 Conditions to avoid

Avoid extreme excessive heat for prolonged periods of time. Avoid contact with water, as the product will naturally harden into a hard mass in contact with water and moisture.

#### 10.5 Materials to avoid

Alcohols, strong acids, strong oxidising materials.

#### 10.6 Hazardous decomposition products

No dangerous decomposition products when stored and handled correctly.

### 11. TOXICOLOGICAL INFORMATION

#### 11.1 Information on toxicological effects

Acute toxicity:	Not classified based on available information.
Skin corrosion/Irritation:	Not classified based on available information.
Serious eye damage/irritation:	Not classified based on available information.
Respiratory sensitisation:	Not classified based on available information.
Skin sensitisation:	May cause allergic skin reaction
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 hazard:	Not classified based on available information.

### 12. ECOLOGICAL INFORMATION

#### 12.1 Ecological information

##### For EC 500-125-5:

Test	Result	Species	Exposure
OECD 203 Fish, Acute Toxicity Test	Acute LC50 2.8 mg/L Fresh water	Fish - Oncorhynchus mykiss	96 hours
OECD 202 Daphnia sp. Acute Immobilization Test	Acute EC50 >100 mg/L Fresh water	Daphnia - Daphnia magna	48 hours
OECD 201 Alga, Growth Inhibition Test	Acute EC50 10 mg/L Fresh water	Algae - Scenedesmus subspicatus	72 hours
OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC50 >1000 mg/L	Bacteria - Activated sludge	3 hours
OECD 202, part 2 Daphnia Magna Reproduction	Chronic NOEC 0.78 mg/L Fresh water	Daphnia - Daphnia magna	21 days

##### For Diuron (ISO):

Test	Result	Species	Exposure
OECD 203 Fish, Acute Toxicity Test	Acute LC50 14,7 mg/l Fresh water	Fish - Oncorhynchus mykiss	96 hours
OECD 202 Daphnia sp. Acute Immobilization Test	Acute EC50 1,4 mg/l Fresh water	Daphnia - Daphnia magna	48 hours

OECD 201 Alga, Growth Inhibition Test	Acute EC50 0,022 mg/l Fresh water	Algae - Scenedesmus subspicatus	72 hours
OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC50 3080 mg/l	Bacteria - Activated sludge	0.5 hours
OECD 204 Fish, Prolonged Toxicity Test: 14-Day Study	Chronic NOEC 0,41 mg/l Fresh water	Fish - Oncorhynchus mykiss	28 days
OECD 211 Daphnia Magna Reproduction	Chronic NOEC 0,56 mg/l Fresh water	Daphnia - Daphnia magna	21 days
OECD 201 Alga, Growth Inhibition Test, Growth	Chronic NOEC 0,0032 mg/l Fresh water	Algae - Scenedesmus subspicatus	71 hours

M-factor 10.

### 12.2 Persistence & degradability

Product is not readily biodegradable.

### 12.3 Bioaccumulative potential

No data available.

### 12.4 Mobility in soil

No data available.

### 12.5 Results of PBT and vPvB assessment

This mixture contains no PBT or vPvB components at levels of 0.1% or higher.

### 12.6 Other adverse effects

No data available.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

All material residues and packaging must be disposed of in accordance with local/national waste disposal regulations and environmental controls.

Cured product is considered inert.

Packaging containing liquid product will meet the criteria for hazardous waste. Code: 15 01 10\*

## 14. TRANSPORT INFORMATION

This product is not classified as hazardous for transport according to current regulations.

## 15. REGULATORY INFORMATION

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

<b>Prohibition/Restriction</b>	
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):	Diocetyl tin dilaurate.

REACH - List of substances subject to authorisation (Annex XIV):	Not applicable.
REACH information:	All substances contained in this product are pre-registered or registered by our upstream suppliers and/or excluded from the regulation and/or exempted from the registration.

## 15.2 Chemical safety assessment

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

## 16. OTHER INFORMATION

### Hazard Statements for components in section 3:

H302:	Harmful if swallowed.
H317:	May cause an allergic skin reaction.
H335:	May cause respiratory irritation.
H351:	Suspected of causing cancer.
H360D:	May damage the unborn child.
H372:	Causes damage to organs through prolonged or repeated exposure.
H373:	May cause damage to organs through prolonged or repeated exposure.
H400:	Very toxic to aquatic life.
H410:	Harmful to aquatic life with long lasting effects.
H412:	Harmful to aquatic life with long lasting effects.
EUH211:	Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

### Sectors of use/relevant identified uses of the mixture:

SU3:	Industrial uses: Uses of substances as such or in preparations at industrial sites.
SU19:	Building and construction work.
SU22:	Professional uses: Public domain (administration, education, entertainment, services, craftsmen).

### Uses advised against:

SU21:	Consumer uses: Private households / general public / consumers.
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### Wording of the hazard classes:

Asp. Tox:	Aspiration toxicity.
Skin Irrit:	Skin irritation.
Skin Sens:	Skin sensitisation.
STOT RE:	Specific target organ toxicity – repeated exposure.
CAS:	Chemical Abstracts Service.
DNEL:	Derived no-effect level.
GHS:	Globally Harmonized System.
LC50:	Median lethal concentration (concentrations of the chemical in air that kills 50% of the test animals during the observation period).
LD50:	Median lethal dose (the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals).
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.
VOC:	Volatile Organic Compounds.
vPvB:	Very persistent and very bioaccumulative.
WEL:	Workplace Exposure Limit.



**Training:**

This material should only be used by trained personnel.

All the information supplied on this data sheet applies only when the product is used for the prescribed application and in accordance with the directions for use.

Please make this data available to all persons involved with the production, transportation and use of this product.

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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