

SAFETY DATA SHEET ARBOSIL 1090

According to the REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577, as amended.

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ARBOSIL 1090

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

Identified uses Neutral cure building sealant.

Uses advised against Restricted to professional users. This product is not intended to be used by the general public.

1.3. Details of the supplier of the safety data sheet

Supplier Adshead Ratcliffe & Co. Ltd.

Derby Road, Belper

Derbyshire. DE56 1WJ

T: (+44) 01773 826661 F: (+44) 01773 821215

E: sds.carlisle@ccm-europe.com

1.4. Emergency telephone number

Emergency telephone NPIS (National Poisons Information Service): 0344 892 0111 (for medical professionals only).

For medical advice, members of the public should contact NHS 111 in England: 111; NHS 24 in Scotland: 111; NHS Direct in Wales: 111 or 0845 4647. In Northern Ireland: contact your

local GP or pharmacist.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards Not Classified

Health hazards Eye Dam. 1 - H318 Skin Sens. 1B - H317 Repr. 1B - H360D

Environmental hazards Not Classified

2.2. Label elements

Hazard pictograms







Signal word

Danger

Hazard statements H3

H318 Causes serious eye damage. H317 May cause an allergic skin reaction. H360D May damage the unborn child.

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Precautionary statements P201 Obtain special instructions before use.

P261 Avoid breathing vapours.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/ doctor.

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

Supplemental label information

The following applies to light colours of this product: EUH212 Warning! Hazardous respirable

dust may be formed when used. Do not breathe dust.

Contains Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium, N,N'-

(ethoxymethylsilylene)bis[N-methylbenzamide], Dioctyltin dilaurate

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Silicon dioxide, chemically prepared

3 - 7%

CAS number: 112945-52-5 EC number: 231-545-4

Classification

Not Classified

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-

< 5%

olato)titanium

CAS number: 83877-91-2 EC number: 281-161-6

Classification

Flam. Liq. 3 - H226 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 STOT SE 3 - H335, H336

N,N'-(ethoxymethylsilylene)bis[N-methylbenzamide]

< 5%

Classification

Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1B - H317

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Dioctyltin dilaurate < 1%

Classification

Repr. 1B - H360D STOT SE 2 - H371 STOT RE 1 - H372

Toluene < 0.1%

CAS number: 108-88-3 EC number: 203-625-9

Classification

Flam. Liq. 2 - H225 Skin Irrit. 2 - H315 Repr. 2 - H361d STOT SE 3 - H336 STOT RE 2 - H373 Asp. Tox. 1 - H304 Aquatic Chronic 3 - H412

The full text for all hazard statements is displayed in Section 16.

Composition comments Light colours of this product may contain at least 1% of titanium dioxide but less than 1% of all

particles have a diameter ≤ 10 µm therefore the classification Carc. 2; H351 does not apply. The labelling statement, EUH212 ('Warning! Hazardous respirable dust may be formed when used. Do not breathe dust') applies however considering the form and use of the product it is

unlikely that respirable dust will be generated.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information In all cases of doubt, or if symptoms persist, seek medical attention. Never give anything by

mouth to an unconscious person.

Inhalation If inhalation causes adverse effects, remove to fresh air.

Ingestion Rinse mouth thoroughly with water. Do not induce vomiting. Get medical attention if any

discomfort continues.

Skin contact Take off contaminated clothing. Wash skin thoroughly with soap and water. Get medical

attention if irritation persists after washing.

Eye contact Rinse cautiously with water for several minutes. Remove any contact lenses and open eyelids

wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately.

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

General information May damage the unborn child.

Inhalation No specific symptoms known.

Ingestion May cause discomfort if swallowed.

Skin contact May cause an allergic skin reaction. Allergic rash. Itchiness. Redness.

Eye contact May cause serious eye damage.

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

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Water spray, fog or mist. Foam, carbon dioxide or dry powder.

Unsuitable extinguishing

media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion

products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or

vapours.

5.3. Advice for firefighters

Protective actions during

firefighting

No specific firefighting precautions known.

Special protective equipment

for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective

clothina.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours. Avoid contact with skin and eyes. For personal protection, see

Section 8. Use suitable respiratory protection if ventilation is inadequate.

6.2. Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Collect and place in suitable waste disposal containers and seal securely. Clean any slippery

coating that remains using a detergent / soap solution or other biodegradable cleaner.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health

hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid breathing vapours. Contaminated work

clothing should not be allowed out of the workplace. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wear protective clothing

as described in Section 8 of this safety data sheet.

Advice on general occupational hygiene

Good personal hygiene procedures should be implemented. Wash hands thoroughly after

handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Usage description Gunnable sealant.

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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Silicon dioxide, chemically prepared

Silica, amorphous - Inhalable dust: Long-term exposure limit (8-hour TWA) WEL: 6 mg/m3, Respirable dust: Long-term exposure limit (8-hour TWA) WEL: 2.4 mg/m3

Titanium dioxide

Long-term exposure limit (8-hour TWA): WEL 4 mg/m³ respirable dust Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ inhalable dust

Dioctyltin dilaurate

Long-term exposure limit (8-hour TWA): WEL 0.1 mg/m³ Short-term exposure limit (15-minute): WEL 0.2 mg/m³ as Sn Sk

Toluene

Long-term exposure limit (8-hour TWA): WEL 50 ppm 191 mg/m³ Short-term exposure limit (15-minute): WEL 100 ppm 384 mg/m³ SL

WEL = Workplace Exposure Limit. Sk = Can be absorbed through the skin.

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium (CAS: 83877-91-2)

DNEL Workers - Inhalation; Long term systemic effects: 254 mg/m³

General population - Inhalation; Long term systemic effects: 303 mg/m³ General population - Dermal; Long term systemic effects: 220 mg/kg/day General population - Oral; Long term systemic effects: 22 mg/kg/day

PNEC - Fresh water; 0.1 mg/l

marine water; 0.01 mg/lIntermittent release; 1 mg/l

- STP; 28 mg/l

- Sediment (Freshwater); 0.0816 mg/kg - Sediment (Marinewater); 0.0082 mg/kg

- Soil; 0.019 mg/kg

N,N'-(ethoxymethylsilylene)bis[N-methylbenzamide] (CAS: 16230-35-6)

DNEL Workers - Inhalation; Long term systemic effects: 1.76 mg/m³

Workers - Dermal; Long term systemic effects: 0.5 mg/kg/day

PNEC Fresh water; 1 mg/l

Fresh water, Intermittent release; 1 mg/l

marine water; 0.01 mg/l

marine water, Intermittent release; 0.1 mg/l

STP; 10 mg/l

Sediment (Freshwater); 15.313 mg/kg Sediment (Marinewater); 1.531 mg/kg

Soil; 1.78 mg/kg

Dioctyltin dilaurate (CAS: 3648-18-8)

DNEL Workers - Inhalation; Long term systemic effects: 0.004 mg/m³

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PNEC Fresh water; 0.002 μg/l

Fresh water, Intermittent release; 0.018 µg/l

marine water; 0.0002 µg/l

STP; 100 mg/l

Sediment (Freshwater); 0.028 mg/kg Sediment (Marinewater); 0.003 mg/kg

Soil; 0.006 mg/kg Oral (food); 0.02 mg/kg

8.2. Exposure controls

Protective equipment





Appropriate engineering

controls

Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory

equipment.

Eye/face protection Chemical splash goggles or face shield. Personal protective equipment that provides

appropriate eye and face protection should be worn.

Hand protection Wear protective gloves. The most suitable glove should be chosen in consultation with the

glove supplier/manufacturer, who can provide information about the breakthrough time of the

glove material. To protect hands from chemicals, wear gloves that are proven to be

impervious to the chemical and resist degradation.

Other skin and body

protection

Appropriate footwear and additional protective clothing complying with an approved standard

should be worn if a risk assessment indicates skin contamination is possible. Provide

eyewash station.

Hygiene measures Wash at the end of each work shift and before eating, smoking and using the toilet. Wash

promptly with soap and water if skin becomes contaminated.

Respiratory protection Respiratory protection complying with an approved standard should be worn if a risk

assessment indicates inhalation of contaminants is possible.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Uncured -paste. Cured - rubber.

Colour Various colours.

Odour Slight.

Odour threshold No information available.

pH Technically not feasible.

Melting point No information available.

Initial boiling point and range No information available.

Flash point Not applicable.

Evaporation rate

No information available.

Evaporation factor

No information available.

Flammability (solid, gas)

No information available.

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Upper/lower flammability or

explosive limits

No information available.

Vapour pressureNo information available.Vapour densityNo information available.

Relative density 1.18 - 1.20 @ 20°C

Solubility(ies) Insoluble in water.

Partition coefficient No information available.

Auto-ignition temperature As paste: 450°C

Decomposition Temperature Not determined.

Viscosity 5,000 - 7,000 P @ 20°C

Explosive properties Not considered to be explosive.

Oxidising properties The mixture itself has not been tested but none of the ingredient substances meet the criteria

for classification as oxidising.

9.2. Other information

Other information Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity See the other subsections of this section for further details.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous

reactions

products

No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Avoid excessive heat for prolonged periods of time.

10.5. Incompatible materials

Materials to avoid

No specific material or group of materials is likely to react with the product to produce a

hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition None at ambient temperatures. Thermal decomposition or combustion may liberate carbon

oxides and other toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects There are no data available on this product.

Acute toxicity - oral

Notes (oral LD50) Based on available data the classification criteria are not met.

ATE oral (mg/kg) 14,076.58

Acute toxicity - dermal

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Notes (dermal LD50) Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀)

Based on available data the classification criteria are not met.

Skin corrosion/irritation

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

Serious eye damage/irritation

Serious eye damage/irritation Eye Dam. 1 Causes serious eye damage.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation Skin Sens. 1B May cause an allergic skin reaction.

Germ cell mutagenicity

Genotoxicity - in vitroBased on available data the classification criteria are not met.

Carcinogenicity

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

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity -

Repr. 1B - H360D May damage the unborn child.

development

Specific target organ toxicity - single exposure

STOT - single exposure Based on available data the classification criteria are not met.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Not relevant, due to the form of the product.

General information Avoid contact during pregnancy/while nursing.

Inhalation Not relevant at normal room temperatures. When heated, toxic vapours may be formed.

Ingestion May cause discomfort if swallowed.

Skin contact May cause an allergic skin reaction.

Eye contact May cause serious eye damage.

Acute and chronic health

hazards

May damage the unborn child.

Toxicological information on ingredients.

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ > 2000 mg/kg, Oral, Rat

Acute toxicity - inhalation

Notes (inhalation LC50) LC50 18180 mg/m³, Inhalation, Rat Read-across data.

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N,N'-(ethoxymethylsilylene)bis[N-methylbenzamide]

Acute toxicity - oral

Acute toxicity oral (LD50

mg/kg)

Species Rat

Notes (oral LD50) Harmful if swallowed.

500.0 ATE oral (mg/kg)

Acute toxicity - dermal

Notes (dermal LD₅₀) LD₅₀ >2000 mg/kg, Dermal, Rat

500.0

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye Causes serious eye damage.

damage/irritation

Skin sensitisation

Skin sensitisation May cause an allergic skin reaction. Local Lymph Node Assay (LLNA) - Mouse:

Sensitising.

Dioctyltin dilaurate

Acute toxicity - oral

Notes (oral LD₅₀) LD₅₀ >2000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD50) LD₅₀ >2000 mg/kg, Dermal, Rat

Reproductive toxicity

Reproductive toxicity -

May damage the unborn child.

development

Specific target organ toxicity - single exposure

STOT - single exposure May cause damage to organs (Immune system).

Target organs Immune system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure NOAEL 0.3 mg/kg/day, Oral, Rat

Target organs Immune system

SECTION 12: Ecological information

Ecotoxicity In cross-linked state not soluble in water. Easily separable from water by filtration.

12.1. Toxicity

Toxicity There are no data for the product.

Acute aquatic toxicity

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

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Chronic aquatic toxicity

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

Ecological information on ingredients.

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

Acute aquatic toxicity

Acute toxicity - fish LC₈₀, 96 hours: 1460 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic

invertebrates

EC₈₀, 48 hours: >= 100 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₈₀, 72 hours: > 100 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms

TT (Toxicity threshold), 16 hours: 280 mg/l, Pseudomonas putida

N,N'-(ethoxymethylsilylene)bis[N-methylbenzamide]

Acute aquatic toxicity

Acute toxicity - fish EC₅₀, 96 hours: >100 mg/l, Brachydanio rerio (Zebra Fish)

Acute toxicity - aquatic

invertebrates

 EC_{50} , 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅o, 72 hours: >100 mg/l, Pseudokirchneriella subcapitata

12.2. Persistence and degradability

Persistence and degradability Silicone content: biologically not degradable.

Ecological information on ingredients.

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium

Biodegradation Expected to be readily biodegradable.

Water - Degradation 44%: 23 hours

Read-across data.

12.3. Bioaccumulative potential

Bioaccumulative potential Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient No information available.

12.4. Mobility in soil

assessment

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB

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This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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General information Dispose of waste to licensed waste disposal site in accordance with the requirements of the

local Waste Disposal Authority.

Disposal methods

This material and its container must be disposed of as hazardous waste. Dispose of

contents/container in accordance with national regulations. Empty containers or liners may

retain some product residues and hence be potentially hazardous.

Waste class Recommended EWC Code 08 04 09* HP4 Irritant HP10 Toxic for reproduction HP13

Sensitising

SECTION 14: Transport information

General The product is not covered by international regulations on the transport of dangerous goods

(IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

SECTION 15: Regulatory information

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

National regulations The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use)

(Amendment etc.) (EU Exit) Regulations 2019 (as amended).

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 (SI 2020 No. 1577) (as

amended).

Health and Safety at Work etc. Act 1974 (as amended).

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment

Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677) (as

amended).

Guidance Workplace Exposure Limits EH40.

Health and environmental

listings

Dioctyltin dilaurate is on the EU Candidate List of Substances of Very High Concern (SVHCs)

for Authorisation.

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Restrictions (SI 2020 No. 1577 Annex XVII)

Entry number: 30

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

ADN: European Agreement concerning the International Carriage of Dangerous Goods by

Inland Waterways.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by

Road.

ATE: Acute Toxicity Estimate.
BCF: Bioconcentration Factor.
CAS: Chemical Abstracts Service.
DNEL: Derived No Effect Level.

EC₅₀: 50% of maximal Effective Concentration.

GHS: Globally Harmonized System.

IATA: International Air Transport Association.

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous

Chemicals in Bulk (International Bulk Chemical Code).

ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Dangerous Goods.

Kow: Octanol-water partition coefficient.

LC50: Lethal Concentration to 50 % of a test population.

LD50: Lethal Dose to 50% of a test population (Median Lethal Dose).

LOAEC: Lowest Observed Adverse Effect Concentration.

LOAEL: Lowest Observed Adverse Effect Level.

LOEC: Lowest Observed Effect Concentration.

MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as

modified by the Protocol of 1978.

NOAEC: No Observed Adverse Effect Concentration.

NOAEL: No Observed Adverse Effect Level. NOEC: No Observed Effect Concentration.

PBT: Persistent, Bioaccumulative and Toxic substance.

PNEC: Predicted No Effect Concentration.

REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577.

RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.

SVHC: Substances of Very High Concern.

vPvB: Very Persistent and Very Bioaccumulative.

Classification abbreviations and acronyms

Acute Tox. = Acute toxicity

Aquatic Chronic = Hazardous to the aquatic environment (chronic)

Asp. Tox. = Aspiration hazard Flam. Liq. = Flammable liquid Eye Dam. = Serious eye damage Repr. = Reproductive toxicity Skin Irrit. = Skin irritation

STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure

Skin Sens. = Skin sensitisation

Key literature references and sources for data

SDS from supplier. Source: European Chemicals Agency, http://echa.europa.eu/

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Classification procedures

Skin Sens. 1B - H317, Eye Dam. 1 - H318, Repr. 1B - H360D: Calculation method.

according to SI 2019 No. 720

Training advice Only trained personnel should use this material.

Revision comments Revised sections: 2, 3, 8. 11, 15. 16.

14/07/2022 Revision date

Revision 3

Supersedes date 09/02/2022

SDS number 10165

SDS status Approved.

Hazard statements in full H225 Highly flammable liquid and vapour.

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H360D May damage the unborn child.

H361d Suspected of damaging the unborn child.

H371 May cause damage to organs (Immune system).

H372 Causes damage to organs (Immune system) through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H412 Harmful to aquatic life with long lasting effects.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.