



SAFETY DATA SHEET ARBOSIL 1090

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 (EC 1272/2008)

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

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

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Precautionary statements	<p>P201 Obtain special instructions before use.</p> <p>P261 Avoid breathing vapours.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P310 Immediately call a POISON CENTER/ doctor.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p>
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Contains	Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium, N,N'-(ethoxymethylsilylene)bis[N-methylbenzamide], Dioctyltin dilaurate
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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

Bis(ethyl acetoacetato-O1',O3)bis(2-methylpropan-1-olato)titanium	< 5%
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%
CAS number: 16230-35-6 EC number: 240-354-5	
Classification Acute Tox. 4 - H302 Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1B - H317	
Dioctyltin dilaurate	< 1%
CAS number: 3648-18-8 EC number: 222-883-3	
Classification Repr. 1B - H360D STOT SE 2 - H371 STOT RE 1 - H372	

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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.

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

Notes for the doctor	Treat symptomatically.
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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

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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 clothing.

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.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

Diocetyl tin 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

Sk

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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/m ³ General population - Inhalation; Long term systemic effects: 303 mg/m ³ 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/l - Intermittent 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/m ³ 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

Diocetyl tin dilaurate (CAS: 3648-18-8)

DNEL	Workers - Inhalation; Long term systemic effects: 0.004 mg/m ³
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 for eye and face protection should comply with European Standard EN166.

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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, gloves should comply with European Standard EN374.
Other skin and body protection	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.
Upper/lower flammability or explosive limits	No information available.
Vapour pressure	No information available.
Vapour density	No 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.
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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 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 products 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) 13,950.89

Acute toxicity - dermal

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. 1 May cause an allergic skin reaction.

Germ cell mutagenicity

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

Carcinogenicity

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

Reproductive toxicity

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

Reproductive toxicity - development Repr. 1B - H360D May damage the unborn child.

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.

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

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 500.0

Species Rat

Notes (oral LD₅₀) Harmful if swallowed.

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

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

Skin corrosion/irritation

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Skin sensitisation

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

Diocetyl tin 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 - development May damage the unborn child.

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.

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 LC₅₀, 96 hours: 1460 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >= 100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 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)

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Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: >100 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 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

Mobility The product is insoluble in water.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment 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

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.

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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, UK SI 2019/720. The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1567. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, UK SI 2019/758, UK SI 2019/858 and UK SI 2019/1144. The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, UK SI 2020/1577. Health and Safety at Work etc. Act 1974 (as amended). Control of Substances Hazardous to Health Regulations 2002 (as amended). The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].
EU legislation	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) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Guidance	Workplace Exposure Limits EH40.
Health and environmental listings	Diocetyl tin dilaurate is on the EU Candidate List of Substances of Very High Concern (SVHCs) for Authorisation.
Restrictions (Annex XVII Regulation 1907/2006)	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) (as amended). Entry number: 30

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

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Abbreviations and acronyms used in the safety data sheet	<p>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</p> <p>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</p> <p>ATE: Acute Toxicity Estimate.</p> <p>BCF: Bioconcentration Factor.</p> <p>CAS: Chemical Abstracts Service.</p> <p>DNEL: Derived No Effect Level.</p> <p>EC₅₀: 50% of maximal Effective Concentration.</p> <p>GHS: Globally Harmonized System.</p> <p>IATA: International Air Transport Association.</p> <p>IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (International Bulk Chemical Code).</p> <p>ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.</p> <p>IMDG: International Maritime Dangerous Goods.</p> <p>Kow: Octanol-water partition coefficient.</p> <p>LC₅₀: Lethal Concentration to 50 % of a test population.</p> <p>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</p> <p>LOAEC: Lowest Observed Adverse Effect Concentration.</p> <p>LOAEL: Lowest Observed Adverse Effect Level.</p> <p>LOEC: Lowest Observed Effect Concentration.</p> <p>MARPOL 73/78: International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978.</p> <p>NOAEC: No Observed Adverse Effect Concentration.</p> <p>NOAEL: No Observed Adverse Effect Level.</p> <p>NOEC: No Observed Effect Concentration.</p> <p>PBT: Persistent, Bioaccumulative and Toxic substance.</p> <p>PNEC: Predicted No Effect Concentration.</p> <p>REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006.</p> <p>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</p> <p>SVHC: Substances of Very High Concern.</p> <p>vPvB: Very Persistent and Very Bioaccumulative.</p>
Key literature references and sources for data	SDS from supplier. Source: European Chemicals Agency, http://echa.europa.eu/
Classification procedures according to Regulation (EC) 1272/2008	Skin Sens. 1 - H317, Eye Dam. 1 - H318, Repr. 1B - H360D: Calculation method.
Training advice	Only trained personnel should use this material.
Revision comments	Revised classification.
Revision date	09/02/2022
Revision	2
Supersedes date	13/04/2017
SDS number	10165
SDS status	Approved.

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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.