

Safety data sheet
according to Regulation (EC) No 1907/2006, Article 31

Printing date 31.08.2025

Version number 1

Revision: 21.08.2025

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

- **1.1 Product identifier**
 - **Trade name:** X60-A
 - **Article number:** 1-X60-A
 - **UFI:** YC00-60HM-000Y-G6XD
 - **1.2 Relevant identified uses of the substance or mixture and uses advised against**
 - **Product category** PC1 Adhesives, sealants
 - **Application of the substance / the mixture**
Adhesives
Hardening agent/ Curing agent
 - **1.3 Details of the supplier of the safety data sheet**
 - **Manufacturer/Supplier:**
HOTTINGER BRUEL & KJAER UK LTD
Advanced Manufacturing Park Technology Centre
Brunel Way, Catcliffe, Rotherham
South Yorkshire, S60 5WG
United Kingdom
Phone: +44 (0) 1145 512230
Email: info@uk.hbm.com
 - **Informing department:**
Tel. +49(0)6131 19240
EMail support-esa@hbkworl.com
 - **1.4 Emergency telephone number:**
Gift-Informationszentrum Nord, Göttingen
Poison Information Center, Göttingen
Tel.: +49 (0)551 19240
(German and English only)
- United Kingdom:
National Poisons Information Service
Emergency number: +44 844 892 0111
- Poisons Information Centre of Ireland:
+353 1 837 9964 for medical professionals
+353 1 809 2166 for public inquiries
CHEMTREC: +44 20 3807 3798 (24h emergency call).
Outside continental USA please call CHEMTREC at +1-703-527-3887 (R-calls are accepted).

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

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- **After skin contact**
Instantly wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.
- **After eye contact**
Remove contact lenses if possible.
Rinse opened eye for several minutes under running water.
In case of permanent aches and pains please go and see the doctor.
Do not rub eyes dry, the mechanical stress can cause additional cornea damages.
- **After swallowing** Rinse out mouth and then drink plenty of water.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
Use fire fighting measures that suit the environment.
The product itself does not burn.
- **For safety reasons unsuitable extinguishing agents** None known.
- **5.2 Special hazards arising from the substance or mixture**
Inhalation of combustion gases may cause serious health hazards.
During incomplete combustion carbon monoxide can be formed.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained breathing apparatus.
- **Additional information** Remove goods in stock from incendiary zone, if possible.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Not required.
- **For non-emergency personnel** Avoid contact with the product.
- **For emergency responders** Put on suitable personal protective equipment.
- **6.2 Environmental precautions:** Do not allow to enter drainage system, ground/soil and water bodies.
- **6.3 Methods and material for containment and cleaning up:**
Collect mechanically.
Avoid dust generation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling
See Section 8 for information on personal protection equipment.
See Section 13 for information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling** No special precautions necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Handling**
Do not eat, drink or smoke while working.
Avoid direct contact with eyes, skin and clothing.

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- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Components with limit values that require monitoring at the workplace:**
WEL: workplace exposure limit
OEL: Occupational Exposure Limit

1317-65-3 Limestone

WEL (Great Britain)	Long-term value: 10* 4** mg/m ³ *inhalable dust; **respirable
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94-36-0 dibenzoyl peroxide

WEL (Great Britain)	Long-term value: 5 mg/m ³
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- **DNELs**

94-36-0 dibenzoyl peroxide

Oral	DNEL (consumer, long-term, systemic)	1.65 mg/kg bw/day (human)
Dermal	DNEL (worker, long-term, systemic)	6.6 mg/kg bw/day (human)
	DNEL (consumer, long-term, systemic)	3.3 mg/kg bw/day (human)
Inhalative	DNEL (worker, long-term, systemic)	11.75 mg/m ³ (human)
	DNEL (consumer, long-term, systemic)	2.9 mg/m ³ (human)

- **PNECs**

94-36-0 dibenzoyl peroxide

PNEC aqua (fresh water)	0.0006 mg/L (.)
PNEC Water (marine water)	0.00006 mg/L (.)
PNEC STP - Sewage Treatment Plant	0.35 mg/L (.)
PNEC soil	0.0758 mg/kg soil dw (.)
PNEC sediment (fresh water)	0.338 mg/kg sedim. dw (.)
PNEC sediment (marine water)	0.0338 mg/kg sedim. dw (.)
PNEC Water (sporadic release)	0.0006 mg/L (.)
PNEC oral	6.67 mg/kg food (.)

- **Additional information:** The lists that were valid during the compilation were used as basis.

- **8.2 Exposure controls**
- **Individual protection measures, such as personal protective equipment**
- **General protective and hygienic measures**
Take off all contaminated clothing immediately.
Wash hands during breaks and at the end of the work.
Do not eat, drink or smoke while working.
Wash contaminated clothing before re-use.
- **Breathing equipment:** Not required.

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- **Hand protection**



Protective gloves.

Only use chemical-protective gloves with CE-labelling of category III (EN 374).

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Nitrile rubber, NBR

- **Penetration time of glove material**

With solid dry substances permeation is not to be expected. Therefore the breakthrough-time for this protective glove has not been measured.

With a lamination strength of 0,11 mm the permeation time is > 480 min.

- **Eye/face protection**



Safety goggles according to EN 166.

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**

- **General Information**

- **Physical state**

Solid

- **Colour:**

White

- **Odour:**

odourless

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

Not determined

- **Boiling point or initial boiling point and boiling range**

Not determined

- **Flammability**

Not determined.

- **Lower and upper explosion limit**

- **Lower:**

Not determined.

- **Upper:**

Not determined.

- **Flash point:**

Not applicable

- **Auto-ignition temperature:**

Product is not selfigniting.

- **Decomposition temperature:**

Not determined.

- **SADT**

- **pH**

Not applicable.

- **Viscosity:**

- **Kinematic viscosity**

Not applicable.

- **dynamic:**

Not applicable.

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- **Solubility**
- **Water:** Insoluble
- **Partition coefficient n-octanol/water (log value)** Not determined.
- **Vapour pressure:** Not applicable.
- **Density and/or relative density**
- **Density at 20 °C** 2.3 - 2.8 g/cm³
- **Relative density** Not determined.
- **Vapour density** Not applicable.
- **Particle characteristics** No further details.

- **9.2 Other information**
- **Appearance:**
- **Form:** Solid material.
- **Important information on protection of health and environment, and on safety.**
- **Self-inflammability:** Product is not selfigniting.
- **Explosive properties:** Product is not explosive.
- **Change in condition**
- **Evaporation rate** Not applicable.

- **Information with regard to physical hazard classes**
- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Information on the shelf life** The product is stable.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.

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- **10.6 Hazardous decomposition products:**
None in case of intended use and storage in compliance with instructions.

SECTION 11: Toxicological information

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

- **LD/LC50 values that are relevant for classification:**

1317-65-3 Limestone

Oral	LD50	6,450 mg/kg (Rat)
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94-36-0 dibenzoyl peroxide

Oral	LD50	> 5,000 mg/kg (Rat) applies to 78% in water
Inhalative	LC50	> 24.3 mg/l/4h (Rat) Literatur

- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **11.2 Information on other hazards**

- **Endocrine disrupting properties**

None of the ingredients is listed.

SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

1317-65-3 Limestone

LC50	> 56,000 mg/l/96h (Gambusia affinis)
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94-36-0 dibenzoyl peroxide

EC50 (static)	0.11 mg/l/48h (Daphnia magna) (OECD 202)
LC50	0.06 mg/l/96h (Oncorhynchus mykiss) (OECD 203)
EC50 (static)	0.0711 mg/l/72h (Raphidocelis subcapitata) (OECD 201)
NOEC (static)	0.02 mg/l/72h (Raphidocelis subcapitata) (OECD 201)
NOEC	0.0316 mg/l/96h (Oncorhynchus mykiss) (OECD 203)

- **12.2 Persistence and degradability** No further relevant information available.
- **Other information:** There are no data available about the preparation.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.

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- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The waste code numbers mentioned are recommendations based on the probable use of the product.

- **European waste catalogue**

08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 04 00	wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10	waste adhesives and sealants other than those mentioned in 08 04 09

- **Uncleaned packagings:**
- **Recommendation:**
Dispose of packaging according to regulations on the disposal of packagings.
Non contaminated packagings can be used for recycling.
Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

SECTION 14: Transport information

- | | |
|---|-------------------------|
| <ul style="list-style-type: none"> · 14.1 UN number or ID number · ADR/RID, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.2 UN proper shipping name · ADR/RID, ADN, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.3 Transport hazard class(es) · ADR/RID, ADN, IMDG · Class | Void |
| <ul style="list-style-type: none"> · IATA · Class | Void
Not Restricted. |
| <ul style="list-style-type: none"> · 14.4 Packing group · ADR/RID, IMDG, IATA | Void |
| <ul style="list-style-type: none"> · 14.5 Environmental hazards: | Not applicable. |

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- | | |
|---|--|
| · 14.6 Special precautions for user | Not applicable. |
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | Void |

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **REGULATION (EC) No 1907/2006 ANNEX XVII**
Taking into account the intended use as specified in section 1, the relevant entries from Annex XVII are carried out.
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
- **REGULATION (EU) 2019/1148**
- **Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))**
None of the ingredients is listed.
- **Annex II - REPORTABLE EXPLOSIVES PRECURSORS**
None of the ingredients is listed.
- **Regulation (EC) No 273/2004 on drug precursors**
None of the ingredients is listed.
- **Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**
None of the ingredients is listed.
- **National regulations**
- **Water hazard class:**
- **Substances of very high concern (SVHC) according to REACH, Article 57**
None of the ingredients is contained.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

This safety data sheet meets the requirements of Regulation (EU) 2015/830 and 2020/878 amending Annex II of Regulation (EC) 1907/2006.

- **Relevant phrases**
The phrases specified here are no labelling elements for the product but repeat the properties of the ingredients from section 3.

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H241 Heating may cause a fire or explosion.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

· **Classification according to Regulation (EC) No 1272/2008** Calculation method

· **Department issuing data specification sheet:**



This Safety Data Sheet has been drawn up in cooperation with:
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· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Org. Perox. B: Organic peroxides – Type B

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· * **Data compared to the previous version altered.**