|  |  |  |
| --- | --- | --- |
| **1. Identification of the substance/mixture and of the company/undertaking** | | |
|  | | |
| * 1. **Product identifier** | **1.3 Details of the supplier of the safety data sheet** | |
|  | | |
| Turbobond Powerglue | **Supplier:** | **Manufacture:** |
|  | ALFA LAVAL Tumba AB | M SEALS A/S |
|  | | |
| **1.2 Relevant identified uses of the substance or mixture and uses advised against** | Hans Stahles väg  SE-147 80 Tumba Sweden Tel: +46 8 53 06 50 00  Fax: + 46 8 53 06 52 59 | Bybjergvej 13  3060 Espergaerde  Denmark |
|  | | |
| **Are of use:** Cyanoacrylate based adhesive |  |  |
|  | | |
|  | **e-mail:** [sds.question@alfalaval.com](mailto:sds.question@alfalaval.com) | |
|  | | |
| **1.4 Emergency telephone number:** Dial in case of emergency poisoning and ask for Poison Information both day and night. Dial + 46 (0) 8-331231 if you have other questions concerning acute poisonings mon-fri 9.00-17.00 | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **2. Hazards identification** | | | |
|  | | | |
| **2.1 Classification of the substance or mixture** | Xi; R36/37/38 | | |
|  | | | |
| **2.2 Label elements** | | | |
|  |  | | |
| **Hazard pictograms** | Xi | *[Hazard X.svg](http://commons.wikimedia.org/w/index.php?title=File:Hazard_X.svg&page=1)*  **Irritant** |  |
|  | | | |
| **Risk phrases** | R36/37/38 Irritating to eyes, respiratory system and skin | | |
|  |  | | |
| **Safety phrases** | S23 Do not breathe vapour  S24/25 Avoid contact with skin and eyes  S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice  S51 Use only in well-ventilated areas | | |
| **Ingredients to be shown on label** | Ethyl-2-cyanoacrylate | | |
| **Additional labeling** | Cyanoacrylate. Warning. May quickly bond skin and eyes. Keep away from children. | | |
| **2.3 Other hazards** | May in a few seconds bond skin and eyelids. | | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **3. Composition/information on ingredients** | | | | | | | |
|  | | | | | | | |
| **3.2 Mixtures**  **Declaration of the constituents according to CLP 1272/2008/EC** | | | | | | | |
|  | | | | | | | |
| **Substances** | **Registration No.** | | | **Weight -(%)** | **CAS No.** | **EC No** | **Classification** |
|  | | | | | | | |
| Ethyl-2-cyanoacrylate | | *-* | | >10 | 7085-85-0 | 215-090-9 | Eye Irrit. 2; H319 STOT SE 3; H335 Skin Irrit. 2; H315  *Substance with exposure limit.* |
|  | | | | | | | |
| **Declaration of ingredients constituents to 1999/45/EC** | | | | | | | |
|  | | | | | | | |
| **Substances** | **Registration No.** | | | **Weight -(%)** | **CAS No.** | **EC No** | **Classification** |
|  | | | | | | | |
| Ethyl-2-cyanoacrylate | | *-* | >10 | | 7085-85-0 | 215-090-9 | Xi; R36/37/38  *Substance with exposure limit.* |
|  | | | | | | | |
| See section 16 for explanation to R-phrases and/or Hazard statements | | | | | | | |
|  | | | | | | | |

|  |  |
| --- | --- |
| **4. First aid measures** | |
|  | |
| **4.1 Description of first aid measures** | |
| **General recommendations** | Consult a physician. Show this safety data sheet to a physician. |
|  | |
| **First aid – eye contact** | Rinse immediately with a gentle stream of lukewarm water (20-30 ºC). Do not panic and do not force apart glued eyelids. Transport the injured person immediately to hospital or ophthalmologist. Continue rinsing eyes during transportation. **Get medical attention.** |
|  | |
| **First aid- skin contact** | Rinse the affected area with soap and water. |
|  | |
| **First aid- ingestion** | Get medical attention immediately.  At apnea/breathing difficulties, give artificial respiration/oxygen. |
|  | |
| **First aid- inhalation** | Provide fresh air and rest. |
|  |  |
| **4.2 Most important symptoms and effects, both acute and delayed** | Irritating to eyes, respiratory system and skin May in a few seconds’ bond skin and eyelids. |
|  |  |
| **4.3 Indication of any immediate medical attention and special treatment needed** | Note to physician: treat shortness of breath and irritation of the lungs with dexamethasone-dosage aerosol. |

|  |  |
| --- | --- |
| **5. Firefighting measures** | |
|  | |
| **5.1 Extinguishing media** | Chemical foam, water spray or carbon dioxide. |
|  | |
| **5.2 Special hazards arising from the substance or mixture** | During a fire, irritating and highly toxic gases may be generated  bythermal decomposition or combustion for example Cox and  NOx. |
|  | |
| **5.3 Advice for firefighters** | Wear self-contained breathing apparatus.  Do not allow fire fighting water to enter drainage or sewage water. |
|  | |

|  |  |
| --- | --- |
| **6. Accidental release measures** | |
|  | |
| **6.1 Personal precautions, protective equipment and emergency procedures** | Use personal protection clothing according to section 8.  Ensure good ventilation. |
|  | |
| **6.2 Environmental precautions** | Do not contaminate surface water, drains or natural watercourses. |
|  | |
| **6.3 Methods and material for containment and cleaning up**  **Large/Small spills** | Remove with liquid-absorbent material (sand, peat, sawdust). |
|  |  |
| **6.4 Reference to other sections** | Personal protection, see section 8.  Disposal, see section 13. |
|  | |

|  |  |
| --- | --- |
| **7. Handling and storage** | |
|  | |
| **7.1 Precautions for safe handling** | Ensure adequate ventilation. The container is opened with caution. Avoid contact with skin and eyes. Wash hands after contact with product. Avoid breathing vapor or mist. Keep away from sources of ignition – no smoking. |
|  | |
| **7.2 Conditions for safe storage, including any incompatibilities** | Keep container tightly closed in a cooled areas. Apart from water, alkalis and amines. |
|  | |
| **7.3 Specific end use** | No information |
|  | |

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **8. Exposure controls/personal protection** | | | | | | | |
|  | | | | | | | |
| **8.1 Control parameters**  *National occupational exposure limit values that correspond to Community occupational exposure limit values in accordance with Directive 98/24/EC, including any notations as referred to in Article 2(1) of Commission Decision 95/320/EC* | | | | | | | |
|  | | | | | | | |
| **Substance** | **CAS No** | | ***Limit value – Short term*** | | ***Limit value - 8 h*** | | **Notifications** |
| ***ppm*** | ***mg/m3*** | ***ppm*** | ***mg/m3*** |
| Ethyl-2-cyanoacrylate | 7085-85-0 | | 0.3 | 1.5 |  |  |  |
| Reference: GESTIS United Kingdom | | | | | | | |
| **8.2 Exposure controls** | |  | | | | | |
| **Appropriate engineering controls** | | Design working places and working practices to prevent direct contact. Ensure good ventilation. | | | | | |
|  | |  | | | | | |
| **Hygiene measures** | | Avoid contact with skin and eyes. Wash hands after contact with product, especially before eating, drinking and smoking. Protect your skin with preventive skin cream. | | | | | |
|  | |  | | | | | |
| **Eye/face protection** | | Tightly fitting safety goggles. | | | | | |
|  | |  | | | | | |
| **Hand protection** | | Chemical resistant gloves. | | | | | |
|  | |  | | | | | |
| **Respiratory protection** | | In case of insufficient ventilation use breathing apparatus (filter type B). | | | | | |
|  | |  | | | | | |
| **Other protection** | | Protective clothing is recommended. | | | | | |
|  | |  | | | | | |
| **Environmental exposure controls** | | See section 6. | | | | | |

|  |  |
| --- | --- |
| **9. Physical and chemical properties** | |
|  | |
| **9.1 Information on basic physical and chemical properties** | |
| **Appearance** | Clear liquid |
|  | |
| **Odour** | Pungent odor |
|  | |
| **Odour threshold** | 1-2 ppm |
|  | |
| **pH (X ºC)** | No information |
| **Melting point/freezing point** | No information |
|  | |
| **Initial boiling point and boiling range** | >200 ºC |
|  | |
| **Flash point** | 83 ºC (Ethyl-2-cyanoacrylate) |
|  |  |
| **Evaporation rate** | No information |
|  |  |
| **Flammability (solid, gas)** | No information |
|  |  |
| **Upper/lower flammability or explosive limits** | No information |
|  |  |
| **Vapour pressure** | No information |
|  |  |
| **Vapour density** | No information |
|  |  |
| **Relative density** | No information |
|  |  |
| **Solubility(ies)** | Almost insoluble in water. |
|  |  |
| **Partition coefficient: n-octanol/water** | No information |
|  |  |
| **Auto-ignition temperature** | No information |
|  |  |
| **Decomposition temperature** | No information |
|  |  |
| **Viscosity** | 2-20000 m Pas, tixotropic |
|  |  |
| **Explosive properties** | No information |
|  |  |
| **Oxidising properties** | No information |
|  |  |
| **9.2 Other information** | Density 1.07 g/cm³ at 20 ºC |

|  |  |
| --- | --- |
| **10. Stability and reactivity** | |
|  | |
| **10.1 Reactivity** | Reacts with water, alkali (lye) and amines. |
|  | |
| **10.2 Chemical stability** | Stable under recommended storage and handling. |
|  | |
| **10.3 Possibility of hazardous reactions** | Polymerization during heat |
|  |  |
| **10.4 Conditions to avoid** | No information. |
|  |  |
| **10.5 Incompatible materials** | Water, alkali (lye) and amines. |
|  |  |
| **10.6 Hazardous decomposition products** | None known. During fire, incompletely degraded coal and nitrogen compounds, may be formed, see section 5. |

*‚*

|  |  |
| --- | --- |
| **11. Toxicological information** | |
|  | |
| **11.1 Information on toxicological effects** | |
|  | |
| **Acute toxicity** | Ethyl-2-cyanoacrylate:  Irritating to eyes (rabbit).  Irritating to skin (rabbit).  LD50 ingestion rat >5 mg/l. |
|  |  |
| **Irritation** | Irritating to eyes, respiratory system and skin.  Inhalation irritates the mucous membranes. Pastes quickly together skin and can therefore, at the carelessness, prevent skin damage. Quickly pastes together eyelids. |
|  |  |
| **Corrosivity** | No information. |
|  |  |
| **Sensitisation** | No information. |
|  |  |
| **Repeated dose toxicity** | No information. |
|  |  |
| **Carcinogenicity** | No information. |
|  |  |
| **Mutagenicity** | No information. |
|  |  |
| **Toxicity for reproduction.** | No information. |

|  |  |
| --- | --- |
| **12. Ecological information** | |
|  | |
| **12.1 Toxicity** | No values. |
|  | |
| **12.2 Persistence and degradability** | No information. |
|  |  |
| **12.3 Bioaccumulative potential** | BCF 2.45 |
|  |  |
| **12.4 Mobility in soil** | No information. |
|  |  |
| **12.5 Results of PBT and vPvB assessment** | No information. |
|  |  |
| **12.6 Other adverse effects** | Prevent discharge of product to sewers, surface and ground water. |
|  |  |

|  |  |
| --- | --- |
| **13. Disposal considerations** | |
|  | |
| **13.1 Waste treatment methods** | Product and container (which cannot be cleaned) should be disposed in accordance with local and national regulations. |
|  | |
| **EWC code:** | According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. |

(

|  |  |  |  |
| --- | --- | --- | --- |
| **14. Transport information** | | | |
|  | | | |
|  | **ADR/RID-S** | **IMDG** | **IATA** |
| **14.1 UN number** | Not classified as dangerous goods. | Not classified as dangerous goods. | Not classified as dangerous goods. |
| **14.2 UN proper shipping name** | Not relevant. | Not relevant. | Not relevant. |
| **14.3 Transport hazard class(es)** | Not relevant. | Not relevant. | Not relevant. |
| **14.4 Packing group** | Not relevant. | Not relevant. | Not relevant. |
| **14.5 Environmental hazards** | Not relevant. | Not relevant. | Not relevant. |
| **14.6 Special precautions for user** | Not relevant. | Not relevant. | Not relevant. |
| **14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** | Not relevant. | Not relevant. | Not relevant. |

|  |  |
| --- | --- |
| **15. Regulatory information** | |
|  | |
| **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture** | Gestis, International Limit Values  European Waste Catalouge and Hazardous Waste List |
|  | |
| **15.2 Chemical safety assessment** | No. |

|  |  |
| --- | --- |
| **16. Other information** | |
|  | |
| **Hazard statements/Risk phrases** | R36/37/38 Irritating to eyes, respiratory system and skin  H315 Causes skin irritation  H319 Causes serious eye irritation  H335 May cause respiratory irritation |
|  |  |
| **Important changes have been made in section** | General update according to EU 453/2010. |
|  |  |

LIMITATION OF LIABILITY

This document is only intended to be used as guidance as regards the risks of which we are aware that are associated with the product. Every individual who works with the product or in close proximity of it must receive suitable training. Individuals who come into contact with the product must be capable of using their own judgement as regards conditions or methods for handling, storing and using the product. Alfa Laval is not liable for demands, losses or damage of any kind that arise from flaws or deficiencies in this document or from using, handling, storing or disposing of the product unless it can be proven that Alfa Laval has acted in a grossly negligent manner. **Beyond what has been agreed upon and specified in writing with Alfa Laval in the individual case, Alfa Laval makes no promises or assumes any liability, including but not limited to implicit guarantees regarding marketability or appropriateness in terms of both the information provided in this document and the product to which the information refers.**