**SDS:** 0018402
**Date Prepared:** 10/15/2021

# SAFETY DATA SHEET

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## 1. IDENTIFICATION

| | |
|---|---|
| **Product Name:** | **EBECRYL® 83 radiation curing resins** |
| **Synonyms:** | None |
| **Product Description:** | Amine modified polyetheracrylate |
| **Molecular Formula:** | Mixture |
| **Molecular Weight:** | Mixture |
| **Intended/Recommended Use:** | Coatings & Inks |

Allnex USA Inc., 9005 Westside Parkway, Alpharetta, Georgia 30009, USA
**For Product and all Non-Emergency Information call** your local Allnex contact point or contact us at http://www.allnex.com/contact

**EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:**
+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)
See Section 16 for Emergency phone numbers for other regions.



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## 2. HAZARDS IDENTIFICATION

**GHS Classification**
Skin Sensitizer Hazard Category 1B
Aquatic Environment Acute Hazard Category 2
Aquatic Environment Chronic Hazard Category 3

**LABEL ELEMENTS**

**Signal Word**
WARNING

**Hazard Statements**
May cause an allergic skin reaction
Harmful to aquatic life
Harmful to aquatic life with long lasting effects

**Precautionary Statements**
Avoid breathing dust/fume/gas/mist/vapours/spray.
Contaminated work clothing should not be allowed out of the workplace.

Wear protective gloves/protective clothing/eye protection/face protection.
Avoid release to the environment.
IF ON SKIN: Wash with plenty of soap and water.
If skin irritation or rash occurs: Get medical advice/attention.
Specific treatment (see supplemental first aid instructions on this label).
Wash contaminated clothing before reuse.
Dispose of contents/container in accordance with local and national regulations.

**Hazards Not Otherwise Classified (HNOC), Other Hazards**
Polymerization may occur from excessive heat, contamination or exposure to direct sunlight.

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## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**HAZARDOUS INGREDIENTS**

| Component / CAS No. | % | GHS Classification |
|---|---|---|
| Acrylic acid<br>79-10-7 | < 0.3 | Flam. Liq. 3 (H226)<br>Acute Tox. 4 (H302)<br>Acute Tox. 4 (H312)<br>Acute Tox. 4 (H332)<br>STOT Single 3 (H335)<br>Skin Corr. 1A (H314)<br>Eye Dam. 1 (H318)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 2 (H411) |
| Acrylated resin<br>- | 0 | Skin Irrit. 2 (H315)<br>Eye Irrit. 2A (H319)<br>Skin Sens. 1B (H317)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) |
| Acrylated polyether<br>- | 35 - 45 | Eye Irrit. 2A (H319)<br>Skin Sens. 1B (H317)<br>Aquatic Acute 2 (H401)<br>Aquatic Chronic 3 (H412) |

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

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## 4. FIRST AID MEASURES

**First-aid Measures**

**Inhalation:**
Material is not expected to be harmful if inhaled. Remove to fresh air.

**Skin Contact:**
Flush with a continuous flow of lukewarm water for 20 minutes or until material is removed. Wash with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention if symptoms persist. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

**Eye Contact:**
Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

**Ingestion:**
If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

**Most Important Symptoms and Effects, Acute and Delayed**
None known.

**Immediate Medical Attention and Special Treatment**
In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Notes To Physician:**
No specific measures have been identified.

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## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:**
Use water spray or fog, carbon dioxide or dry chemical.

**Unsuitable Extinguishing Media:**
full water jet.

**Protective Equipment:**
Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See SDS Section 8 (Exposure Controls/Personal Protection).

**Special Hazards:**
Keep containers cool by spraying with water if exposed to fire.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**
Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

**Methods For Cleaning Up:**
Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

**Environmental Precautions:**
Avoid release to the environment.

**References to other sections:**
See Sections 7, 8 and 13 for additional information.

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## 7. HANDLING AND STORAGE

**HANDLING**

**Precautions:** Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Avoid release to the environment.

**Special Handling Statements:** Store in a dry, well ventilated area. Keep container tightly closed and away from water or acids. Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization.

**STORAGE**
Store in a cool, dry, well ventilated place and keep container tightly closed. Keep away from heat sources and direct sunlight.

**Storage Temperature:** Store at 4 - 40 °C 39.2 - 104 °F
**Reason:** Quality.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Measures:**
Engineering controls are not usually necessary if good hygiene practices are followed.

**Respiratory Protection:**
For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment.
Recommended respirators include those certified by NIOSH.

Recommended:
Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

**Eye Protection:**
Wear eye/face protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

**Skin Protection:**
Avoid skin contact. Wear impermeable gloves and suitable protective clothing.

**Hand Protection:**
Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for repeated or prolonged exposure - non exhaustive list:
Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: up to 480 min

Gloves for short term exposure/splash protection - non exhaustive list:
Nitrile rubber (NBR), thickness: 0.1 mm, break through time: up to 30 min

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

Not suitable gloves - non exhaustive list:
Latex gloves

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.

**Additional Advice:**
Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

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### Exposure Limit(s)

**79-10-7 Acrylic acid**

| | |
|---|---|
| OSHA (PEL): | Not established |
| ACGIH (TLV): | (skin) |
| | 2 ppm (TWA) |

Other Value: 1 ppm skin (Allnex)

### Biological Exposure Limit(s)

No values have been established.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| **Color:** | pale yellow |
| **Appearance:** | liquid |
| **Odor:** | acrylate |
| **Boiling Point:** | > 100 °C |
| **Melting Point:** | Not available |
| **Vapor Pressure:** | < 1.33 hPa @ 20 °C |
| **Specific Gravity/Density:** | 1.11 g/cm³ @ 23 °C |
| **Vapor Density:** | Not available |
| **Percent Volatile (% by wt.):** | Not available |
| **pH:** | Not available |
| **Saturation In Air (% By Vol.):** | Not available |
| **Evaporation Rate:** | Not available |
| **Solubility In Water:** | Insoluble |
| **Volatile Organic Content:** | Not available |
| **Flash Point:** | Not applicable (polymerized at 178 °C) Cleveland Open Cup |
| **Flammable Limits (% By Vol):** | Not applicable |
| **Autoignition Temperature:** | Not available |
| **Decomposition Temperature:** | Not available |
| **Partition coefficient (n-octanol/water):** | Not available |
| **Odor Threshold:** | Not available |
| **Viscosity (Kinematic):** | Not available |
| **Viscosity (Dynamic):** | Low viscous liquid |
| **Flammability:** | Normal combustion |
| **Oxidizing Properties:** | No |

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## 10. STABILITY AND REACTIVITY

**Reactivity:** No information available

**Stability:** Stable.

**Conditions To Avoid:** Avoid direct exposure to sunlight. Avoid temperatures above 60°C (140°F). Avoid friction with temperature increase as result. Avoid exposure to strong UV sources. Loss of dissolved air. Loss of polymerization inhibitor. Avoid direct contact with heat sources.

**Polymerization:** May occur

**Conditions To Avoid:** Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers Hazardous polymerization can occur when exposed to direct sunlight. Hazardous exothermic polymerization can occur when heated. Avoid contact with bases or amines. Avoid contact with strong oxidizing agents. Avoid contact with free radical initiators. Material should not be heated above 100°C due to polymerization.

**Materials To Avoid:** Avoid contact with peroxides.

Copper, copper alloys, carbon steel, iron and rust.
Avoid free radical producing initiators.
Contact with alkalis.
They give an exothermic reaction with the product.
Unintentional contact with them should be avoided.
Avoid contact with active metals.
Hazardous polymerization may occur.

**Hazardous Decomposition Products:**
hydrogen cyanide (HCN)
oxides of carbon
smoke
hydrocarbons
soot
nitrogen oxides (NOx)

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## 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin, Eyes, Oral.

**Acute toxicity - oral:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Acute toxicity - dermal:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Acute toxicity - inhalation:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

**Skin corrosion / irritation:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Serious eye damage / eye irritation:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

**Respiratory sensitization:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Skin sensitization:** May cause an allergic skin reaction

**Carcinogenicity:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Germ cell mutagenicity:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Reproductive toxicity:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

**Specific target organ toxicity (STOT) - single exposure:** Not Classified. **-** Based on available data and/or professional judgment, the classification criteria are not met.
**Specific target organ toxicity (STOT) - repeated exposure:** Not Classified. **-** Based on available data and/or professional judgment, the classification criteria are not met.

**Aspiration hazard:** Not Classified **-** Based on available data and/or professional judgment, the classification criteria are not met.

## PRODUCT TOXICITY INFORMATION

**ACUTE TOXICITY DATA**

| | | | | | |
|---|---|---|---|---|---|
| oral | rat | Acute LD50 | | > 2000 | mg/kg |
| dermal | rabbit | Acute LD50 | | > 2000 | mg/kg |
| inhalation | rat | Acute LC50 | 4 hr | No data | |

**LOCAL EFFECTS ON SKIN AND EYE**

| | | | |
|---|---|---|---|
| Acute Irritation | eye | rabbit | Not irritating |
| Acute Irritation | dermal | rabbit | Not irritating |

**ALLERGIC SENSITIZATION**

| | | |
|---|---|---|
| Sensitization | Skin | No data |
| Sensitization | respiratory | No data |

**GENOTOXICITY**

**Assays for Gene Mutations**

| | | |
|---|---|---|
| Ames Salmonella Assay | Salmonella Typhimurium<br>Escherichia coli | Not mutagenic |

**OTHER INFORMATION**

The toxicity data above are the results from Allnex sponsored studies or from the available public literature.

**HAZARDOUS INGREDIENT TOXICITY DATA**

Acrylic acid has acute oral (rat) LD50, acute dermal (rabbit) LD50, and acute inhalation (rat, 4-hr, vapor) LC50 values of 617-1405 mg/kg, >2000 mg/kg, and >1730 ppm (>5.1 mg/L), respectively. Direct contact may cause severe eye irritation with corneal injury which may result in permanent impairment of vision and even blindness. Chemical burns may occur. Vapors may also cause severe eye irritation. Skin contact may cause severe skin burns. Symptoms may include pain, severe local redness, swelling, blistering and tissue damage. Inhalation overexposure may cause severe irritation of the respiratory tract. Repeated overexposures may have effects on the kidney. Acrylic acid did not cause cancer when given to rats in their drinking water throughout their lifetime. No skin tumors occurred in mice receiving repeated skin applications of acrylic acid at nonirritating doses. A slight, not statistically significant increase in skin tumors reported in another study is difficult to interpret due to the low incidence and conflicting information regarding dose. This substance has been toxic to the fetus in laboratory animals at doses toxic to the mother but has not been found to cause birth defects in laboratory animals. In laboratory animal studies with acrylic acid, effects on reproduction have been seen only at doses that produced significant toxicity to the parent animals. The results of in vitro genetic toxicity studies are predominantly negative. Animal genetic toxicity studies are negative (not mutagenic).

Acrylate resin has an acute oral (rat) LD50 and acute dermal (rabbit) LD50 values of > 5000 mg/kg and > 2000 mg/kg, respectively. Direct contact with this material may cause moderate eye and skin irritation. Repeated or prolonged skin contact may cause allergic skin reactions.

Polyol acrylate has an acute dermal (rabbit) LD50 value of > 10000 mg/kg. Direct contact with this material may cause moderate eye irritation. Results from in vitro mutagenicity tests are mixed. This substance was not mutagenic in the Ames Salmonella Assay, however, it was mutagenic in various cell culture systems (i.e. Mouse lymphoma Assay). An in vivo mouse micronucleus study, designed to assess the clastogenic potential in whole animals, was negative for mutagenicity. Therefore, based on a weight-of-the-evidence approach, this material is considered non-mutagenic.

**WARNING:** Reproductive Harm – www.P65Warnings.ca.gov

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## 12. ECOLOGICAL INFORMATION

**TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS**

**Overall Environmental Toxicity:** Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

**RESULTS OF PBT AND vPvB ASSESSMENT**
Not determined

**HAZARDOUS INGREDIENT TOXICITY DATA**

| Component / CAS No. | Toxicity to Fish |
|---|---|
| Acrylic acid (79-10-7) | LC50 = 27 mg/L - Salmo gairdneri (96h) |
| Acrylated resin (-) | Not available |
| Acrylated polyether (-) | Not available |

| Component / CAS No. | Toxicity to Water Flea |
|---|---|
| Acrylic acid (79-10-7) | EC50 = 47 mg/L - Daphnia magna (48h)<br>EC50 = 95 mg/L - Daphnia magna (48h)<br>NOEC = 12-19 mg/L - Daphnia magna (21d) |
| Acrylated resin (-) | Not available |
| Acrylated polyether (-) | Not available |

| Component / CAS No. | Toxicity to Algae |
|---|---|
| Acrylic acid (79-10-7) | EC50 = 0.13 mg/L - Scenedesmus subspicatus (72h)<br>EC10 = 0.03 mg/L - Scenedesmus subspicatus (72h) |
| Acrylated resin (-) | Not available |
| Acrylated polyether (-) | Not available |

| Component / CAS No. | Partition coefficient |
|---|---|
| Acrylic acid (79-10-7) | 0.38 - 0.46 |
| Acrylated resin (-) | Not available |
| Acrylated polyether (-) | Not available |

## 13. DISPOSAL CONSIDERATIONS

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this SDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change.

State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

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## 14. TRANSPORT INFORMATION

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

**US DOT**

Dangerous Goods? Not applicable/Not regulated

**TRANSPORT CANADA**

Dangerous Goods? Not applicable/Not regulated

**ICAO / IATA**

Dangerous Goods? Not applicable/Not regulated

**IMO**

Dangerous Goods? Not applicable/Not regulated

**SPECIAL PRECAUTIONS FOR USER**
Protect against external heat sources above +40°C/104°F.

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## 15. REGULATORY INFORMATION

**Inventory Information**

**United States (USA):** All components of this product are designated as “Active” on the TSCA Inventory or are not required to be listed.

**Canada:** All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

**European Economic Area (including EU):** When purchased and shipped from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

**Australia:** All components of this product are either listed on the Australian Inventory of Industrial Chemicals, have been assessed by AICIS or are exempt from notification requirements

**New Zealand:** This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

**China:** All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

**Japan:** One or more components of this product are NOT included on the Japanese (ENCS and/or ISHL) inventories.

**Korea:** One or more components of this product are NOT included on the Korean (ECL) inventory. The company has obtained the required notification approvals from Ministry of Environment (MOE) as per the ARECs (the Act on the Registration and Evaluation, etc. of Chemical Substances) for the component(s) not listed in the Korean Inventory (ECL). The product can be imported/manufactured in Korea ONLY under specific conditions. When purchased from Allnex Korea or Chemart distributor this product is compliant with the ARECs. All its components are either excluded, exempt, pre-notified and/or registered. When purchased from another allnex entity, please contact PSRA-KREACH@allnex.com to check the possibility to be covered by our Only Representative.

**Philippines:** One or more components of this product are NOT included on the Philippine (PICCS) inventory.

**Taiwan:** All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

**Switzerland:** All components of this product are exempt from the new substance notification requirements for Switzerland (SR 813.11 art. 24-26).

**Turkey:** When purchased directly from Allnex by a Turkish legal entity, this product is compliant with the PRE-registration requirements of KKDIK as all its components are either pre-registered, excluded and/or exempt.

**OTHER ENVIRONMENTAL INFORMATION**

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA

**PRODUCT HAZARD CATEGORY UNDER SECTIONS 311 AND 312 OF EPCRA**

**Physical Hazards**
Not applicable

**Health Hazards**
Respiratory or Skin Sensitization

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## 16. OTHER INFORMATION

**NFPA Hazard Rating (National Fire Protection Association)**

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures.

**Reasons for Issue:** Revised Section 2
Revised Section 3
Revised Section 12

**Date Prepared:** 10/15/2021
**Date of last significant revision:** 10/15/2021

**Component - Hazard Statements**
Acrylic acid
H226 - Flammable liquid and vapor.

H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.
H332 - Harmful if inhaled.
H335 - May cause respiratory irritation.
H400 - Very toxic to aquatic life.
H411 - Toxic to aquatic life with long lasting effects.

Acrylated resin
H315 - Causes skin irritation.
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.

Acrylated polyether
H319 - Causes serious eye irritation.
H317 - May cause an allergic skin reaction.
H401 - Toxic to aquatic life.
H412 - Harmful to aquatic life with long lasting effects.

**Emergency phone numbers for other regions**

**Asia Pacific**
Australia: +61 1800 022 037 (Allnex Australia)
China (PRC): +86(0)532 8388 9090 (NRCC)
India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Indonesia: 007 803 011 0293 (Carechem 24)
Japan: +81 345 789 341 (Carechem 24)
Korea: +82 2 3479 8401 (Carechem 24)
Malaysia: +60 3 6207 4347 (Carechem 24)
New Zealand: +64 0800 803 002 (Allnex New Zealand)
Philippines: +63 2 231 2149 (Carechem 24)
Taiwan: +886 2 8793 3212 (Carechem 24)
Vietnam: +84 8 4458 2388 (Carechem 24)
All Others: +65 3158 1074 (Carechem 24)

**Europe**
+44 (0) 1235 239 670 (Carechem 24)

**Middle East, Africa**
+44 (0) 1235 239 671 (Carechem 24)

**Latin America**
Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)
Chile: +56 2 2582 9336 (Carechem 24)
Mexico and all others: +52-555-004-8763 (Carechem 24)