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| |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **ACTUE ORAL TOXICITY – Annex 1** | | | | | | |  | **Category 1** | **Category 2** | **Category 3** | **Category 4** | **Category 5** | | **LD50** | **≤** 5 mg/kg | **>** 5 **<** 50 mg/kg | **≥** 50 **<** 300 mg/kg | **>** 300 **≤** 2000 mg/kg | **≥**2000 and **<**5000 mg/kg | | **Pictogram** |  |  |  |  | No Symbol | | **Signal Word** | Danger | Danger | Danger | Warning | Warning | | **Hazard**  **Statement** | Fatal if Swallowed | Fatal if Swallowed | Fatal if Swallowed | Harmful if Swallowed | May be harmful if Swallowed | |

**Toxicity:** Categories 1 and 2 considered to be ***highly toxic*** having acute toxicity.

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| **Acute**  **Toxicity** | **Category 1** | **Category 2** | **Category 3** | **Category 4** | **Category**  **5** |
| Oral  (mg/kg) | **≤** 5 | **>** 5  **≤** 50 | **>** 50  **≤** 300 | **>** 300  **≤** 2000 | **Criteria:**   * Anticipated oral LD50 between 2000 and 5000 mg/kg; * Indication of significant effect in humans; \* * Any mortality at class 4; \* * Significant clinical signs at class 4; \* * Indications from other studies. \*   **\***If assignment to a more hazardous class is not warranted |
| Dermal  (mg/kg) | **≤** 50 | **>** 50  **≤** 200 | **>** 200  **≤** 1000 | **>** 1000  **≤** 2000 |
| Gases  (ppm) | **≤** 100 | **>** 100  **≤** 500 | **>** 500  **≤** 2500 | **>** 2500  **≤** 5000 |
| Oral  (mg/l) | **≤** 0.5 | **>** 0.5  **≤** 2.0 | **>** 2.0  **≤** 10 | **>** 10  **≤** 20 |
| Oral  (mg/l) | **≤** 0.05 | **>** 0.05  **≤** 0.5 | **>** 0.5  **≤** 1.0 | **>** 1.0  **≤** 5 |

**Skin Corrosion/Irritation:** considered to be reversible, corrosion is not. One typical characteristics of corrosive material is extreme pH like ≤2 or ≥ 11.5.

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| **Skin Corrosion**  **Category 1** | | | **Skin Irritation**  **Category 2** | **Mild Skin Irritation**  **Category 3** |  |
| Destruction of dermal tissue: visible necrosis in at least one animal | | | Reversible adverse effects in dermal tissue | Reversible adverse effects in dermal tissue |
| Subcategory 1A  Exposure **<** 3 min  Observation **<** 1 hr. | Subcategory 1B  Exposure **<** 3 min  Observation **<** 14 days | Subcategory 1C  Exposure **<** 4 hrs.  Observation **<** 14 days | Draize Score: **≥** 2.3 **<** 4.0 or persistent information | Draize Score: **≥** 1.5 **<** 2.3 |

**Eye Effects**: Irritation considered to be reversible, serious damage is not. One typical characteristic of corrosive material is extreme pH like ≤2 or ≥ 11.5.

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| **Category 1**  **Serious eye damage** | **Category 2**  **Eye Irritation** | |
| **Irreversible damage 21 days after exposure**  **Draize score:**  **Corneal opacity ≥ 3**  **Iritis ≥ 1.5** | **Reversible adverse effects on cornea, iris,**  **conjunctiva**  **Draize score:**  **Corneal opacity ≥ 1**  **Iritis ≥ 1**  **Redness ≥ 2**  **Chemosis ≥ 2** | |  |
|  | **Irritant**  **Subcategory 2A**  **Reversible in 21 days** | **Mild Irritant**  **Subcategory 2B**  **Reversible in 7 days** |

**Sensitizers**: Two categories and skin. Respiratory sensitizers induce hypersensitivity of the always following inhalation of the substance. Skin sensitizers (equivalent to contact sensitizers) induce an allergic response following skin contact.

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| Respiratory Sensitizer: | Skin Sensitizer: |

**Germ Cell Mutagenicity** (left table) and **Carcinogenicity** (right table)

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| |  |  |  | | --- | --- | --- | | **Category 1 Known/Presumed** | | **Category 2 Suspected/Possible** | | Known to produce heritable mutations in human germ cells | | * May induce heritable mutations in human germ cells * Positive evidence from tests in mammals and somatic cell tests * *In vivo* somatic genotoxicity supported by *in vito* mutagenicity | | Subcategory 1A Positive evidence from epidemiological studies | Subcategory 1B  Positive results in:   * *In vivo* heritable germ cell tests in mammals * Human germ cell tests * *In vivo* somatic mutagenicity tests, combined with some evidence of germ cell mutagenicity |  | | |  |  |  | | --- | --- | --- | | **Category 1**  **Known or Presumed Carcinogen** | | **Category 2**  **Suspected Carcinogen** | | Subcategory 1A  **Known or Human Carcinogen**  Based on human evidence | Subcategory 1B  Presumed Human Carcinogen  Based on demonstrated animal carcinogenicity | Limited evidence of human or animal carcinogenicity |   GHS HAZCOM  Chemical Hygiene Pocket Guide |

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| **Reproductive toxicity**   |  |  |  |  | | --- | --- | --- | --- | | **Category 1** | | **Category 2 Suspected** | **Additional Category** | | Known or presumed to cause effects on human reproduction or on development | | Human or animal evidence possibly with other information | Effects on or via lactation |  | | **Category 1A**  **Known**  Based on human evidence | **Category 1B**  **Presumed**  Based on experimental animals | | **Acute and Chronic Aquatic Toxicology**   |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | | **Acute Cat. I**  Acute toxicity ≤ 1.00 mg/l | | **Acute Cat. II**  Acute toxicity > 1.00 but ≤ 10.0 mg/l | | **Acute Cat. III**  Acute toxicity > 1.00 but < 100.0 mg/l | | | **Chronic Cat. I**  Acute toxicity  **≤** 1.00 mg/ and lack of rapid  degradability and log Kow **≥** 4  unless BCF **<** 500 | **Chronic Cat. II**  Acute toxicity  **>** 1.00 but **≤** 10.0 mg/l and lack of rapid degradability and log Kow **≥** 4  unless BCF < 500 and unless chronic toxicity **>** 1 mg/l | | **Chronic Cat. III**  Acute toxicity  **>** 10.0 but **≤** 100 mg/l and lack of rapid degradability and log Kow **≥** 4  unless BCF < 500 and unless chronic toxicity > 1 mg/l | | **Chronic Cat. IV**  Acute toxicity  **>** 100 mg/l and lack of rapid degradability and log Kow **≥** 4  unless BCF < 500 and unless chronic toxicity **>** 1 mg/l |  | |