SAFETY DATA SHEET



FORMAMIDE

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

| 1.1 Product identifier: | |
|-------------------------|---------------------------------------|
| CAS Number: | 75-12-7 |
| EC number: | 200-842-0 |
| 1.2 SYNONYMS: | Methanamide |
| | Formic acid amide |
| | Ammonia formate |
| | N-formylmethanamine |

SECTION 2: Hazards identification:

| 2.1 Classification of the substance or mixture: | Classification according to Regulation (EC) No 1272/2008 The substance is classified according to the CLP regulation. |
|---|--|
| 2.2 Label elements: Hazard Pictograms: | Labelling according to Regulation (EC) No 1272/2008 Carcinogenicity (Category 2) Reproductive toxicity (Category 1B) Specific target organ toxicity - repeated exposure, Oral (blood) (Category 2) |
| | |
| Signal Word: | Danger |
| Hazard statements: YOUR CHEM | H351: Suspected of causing cancer. H360D: May damage the unborn child. H373: May cause damage to organs (Blood) through prolonged or repeated exposure if swallowed. |
| Precautionary Statements: | P202: Do not handle until all safety precautions have been read and understood. |



| ESTI | P260: Do not breathe mist or vapors. P280: Wear protective gloves/ protective clothing/ eye protection/ face protection. P308 + P313: IF exposed or concerned: Get medical advice/ attention. |
|---|---|
| | P405: Store locked up. P501: Dispose of contents/ container to an approved waste disposal plant. |
| 2.3 Other hazards: | |
| Inhalation: | can cause respiratory irritation, coughing, and shortness of breath, and prolonged exposure may lead to more serious respiratory issues. |
| Ingestion: | can cause nausea, vomiting, abdominal pain, and potentially severe damage to the gastrointestinal tract, liver, and kidneys. |
| Skin Contact: | can cause irritation, redness, and dermatitis, and prolonged exposure may lead to more severe skin damage. |
| Eye contact: | can cause irritation, redness, and pain, and prolonged exposure may result in damage to the eye tissues. |
| Chronic Exposure: | may lead to damage to the liver, kidneys, and nervous system, as well as reproductive and developmental effects. |
| Aggravation of pre-existing conditions: | may aggravate pre-existing conditions such as respiratory disorders, liver or kidney disease, and neurological or reproductive conditions. |



SECTION 3: Composition/information on ingredients

| 3.1 Chemical characterisation: | Substances |
|--------------------------------|--------------------------------|
| CAS No: | Description: 75-12-7 FORMAMIDE |
| Identification number(s): | EC number: 200-842-0 |
| | |

SECTION 4: First aid measures

| | , |
|---|---|
| 4.1 Description of first aid measures | |
| General information: | |
| After inhalation: | If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician. |
| After skin contact: | Remove contaminated clothing. Wash with soap and water. Consult a physician. |
| After eye contact: | Immediately flush eyes with plenty of water for at least 15 minutes. consult a physician. |
| After swallowing: | Rinse mouth with water. Immediately after ingestion. If conscious, make victim drink two glasses at most immediately. Never give anything by mouth to an unconscious person. Do not induce vomiting. Consult a physician. |
| 4.2 Most important symptoms and effects, both acute and delayed: | Acute exposure can cause respiratory irritation, nausea, and skin or eye irritation, while chronic exposure may lead to liver, kidney, and nervous system damage, as well as reproductive and developmental effects. |
| 4.3 Indication of any immediate medical attention and special treatment needed: | Treat symptomatically. |



SECTION 5: Firefighting measures

| 5.1 Extinguishing media: | Carbon dioxide. Water spray. |
|----------------------------------|--------------------------------------|
| | Alcohol-resistant foam. |
| 5.2 Special hazards arising from | Nitrogen oxides, carbon oxides. |
| the substance or mixture: | |
| 5.3 Advice for firefighters: | Wear fully protective suit, safety |
| -511 | glasses and respiratory device. Cool |
| LOID | tanks/drums with water |
| | spray/remove them into safety. |
| 5.4 further information: | no data available |

SECTION 6: Accidental release measures

| 6.1 Personal precautions, protective equipment and emergency procedures: | Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. |
|--|--|
| | Remove all sources of ignition. |
| | Evacuate personnel to safe areas. Beware of vapours accumulating |
| | to form explosive concentrations. |
| | Avoid dust accumulation. Seek |
| | medical attention. |
| 6.2 Environmental precautions: | Do not enter this chemical into |
| | drains. |
| 6.3 Methods and material for | Take up spill into absorbent |
| containment and cleaning up: | material, e.g.: sand, earth, |
| | vermiculite, powdered limestone. |
| | Scoop absorbed substance into |
| | closing containers. Spill must not |
| | return in its original container. |
| YOUR CHEMI | Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling. |



SECTION 7: Handling and storage

| 7.1 Precautions for safe handling: | For use in are with adequate |
|-------------------------------------|---------------------------------------|
| 7.1 Frecautions for safe nationing. | ventilation. |
| | |
| | Empty containers pose a fire risk, |
| | evaporate the residue under a |
| | fume hood. Ground all equipment |
| EQTIN | containing material |
| | Do not use in confined spaces. |
| | Electrostatic discharge protection. |
| | Minimize dust generation and |
| | accumulation. Avoid ingestion and |
| | inhalation. |
| 7.2 Conditions for safe storage, | Store in original containers. |
| including any incompatibilities: | Keep containers securely sealed |
| | Store in a cool, dry, well-ventilated |
| | area. Store away from incompatible |
| | materials and foodstuff containers. |
| | Protect containers against physical |
| | damage and check regularly for |
| | leaks. Store in a dry and dark area. |
| | Do not handle in flammable |
| | atmospheres. |
| Requirements to be met by | Keep container tightly closed in a |
| storerooms and receptacles: | dry and well-ventilated place. |
| | Containers which are opened must |
| | be carefully resealed and kept |
| | upright to prevent leakage. |
| 7.3 Specific end uses: | no data available |

SECTION 8: Exposure controls/personal protection

| 8.1 Control parameters | |
|----------------------------------|-----------------------------------|
| Additional information about | A system of local and general |
| design of technical facilities: | exhaust is recommended. |
| 8.2 Exposure controls | |
| Appropriate engineering controls | Handle in accordance with good |
| | industrial hygiene and safety |
| | practice. Wash hands before |
| | breaks and at the end of workday. |



| Personal protective equipment: General protective and hygienic measures: | Dust respirator, protective masks, wearing anti chemical gloves, rubber gloves, etc. Eyes, body and hand protection, maintain indoor air unobstructed. Wear protective equipment. Respiratory protection: Required. |
|---|--|
| Protection of hands: | Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws. Wash and dry hands. |
| | Eye protection: Required |
| Protection of Body: | Complete suit protecting against chemicals, Flame retardant antistatic protective clothing. |

SECTION 9: Physical and chemical properties

| 9.1 Information on basic physical and chemical properties General Information | |
|---|-------------------|
| Appearance: Form: | Viscous liquid |
| Colour: | Colourless |
| Odour: | Odourless |
| pH-value: | 7 |
| Melting point/Melting range: | 3°C |
| Boiling point/Boiling range: | 210°C |
| Flammability (solid, gaseous): | Non- flammable |
| Ignition temperature: | 455°C |
| Decomposition temperature: | No data available |
| Self-igniting: | None |
| Flash point: | 199°C |
| Danger of explosion: | None |



| Explosion limits: Lower: | Not applicable |
|-----------------------------------|-------------------------|
| Explosion limits: Upper: | Not applicable |
| Vapour pressure: | 0.1 mmHg at 20°C |
| Density at 20 °C: | 1.133 g/cm ³ |
| Relative density: | 1.133 |
| Vapour density: | 2.5 |
| Evaporation rate: | Not determined |
| Solubility in / Miscibility with- | Completely Soluble |
| ·water at 20 °C: | |
| Partition coefficient:(n- | -0.54 |
| octanol/water) | |
| Viscosity: | 1.75 mPa·s at 20°C |

SECTION 10: Stability and reactivity

| 10.1 Reactivity | Stable at room temperature. |
|---|---|
| 10.2 Chemical stability | This chemical is stable under |
| | storage conditions. |
| 10.3 Possibility of hazardous reactions | No hazardous reaction known |
| 10.4 Conditions to avoid | Strong heat. |
| 10.5 Incompatible materials | Strong oxidizing agents, strong acids and bases. |
| 10.6 Hazardous decomposition products | Carbon monoxide, nitrogen oxides and formic acid. |

SECTION 11: Toxicological information

| 11.1 Information on toxicological effects | |
|---|---|
| Acute Toxicity: | LD50 (Oral, Rat): no data available LD50 (Dermal, Rabbit): 3000 mg/kg LC50 (Inhalation Rat): 21mg/l (4hr) |
| Skin corrosion/Irritation: | No data available |
| Serious eye damage/irritation: | Cause slight eye irritation. |
| Respiratory damage/irritation: | No data available |
| Ingestion: | No data available |
| Germ cell mutagenicity: | No data available |



| Carcinogenicity: | Suspected of causing cancer. |
|----------------------------------|------------------------------|
| Reproductive toxicity: | May damage the unborn child |
| Specific target organ toxicity - | No data available |
| single exposure: | |
| Specific target organ toxicity - | Can cause damage to blood |
| repeated exposure: | 4070 |
| Aspiration hazard: | No data available |
| Signs and Symptoms of Exposure: | Refer section 2.3 |
| 11.2 Additional toxicological | |
| information | |
| Biodegradability: | Readily Biodegradable |

SECTION 12: Ecological information

| 12.1 Toxicity | LC50(fish): 6.569 mg/l (96 hr) |
|---------------------------------|---------------------------------|
| Aquatic toxicity: | EC50(daphnia): 500 mg/l (48 hr) |
| | ErC50(algae): 500 mg/l (96 hr) |
| 12.2 Persistence and | Readily Biodegradable |
| degradability: | |
| 12.3 Bioaccumulative potential: | Low bioaccumulative |
| 12.4 Mobility in soil: | High mobility |
| 12.5 Other adverse effects: | No data available |

SECTION 13: Disposal considerations

| 13.1 Waste treatment methods | |
|-------------------------------|-------------------------------------|
| Uncleaned packaging | dispose of in accordance with local |
| Recommendation: | hazardous waste regulations |
| Recommended cleansing agents: | Water, soap or detergent, Isopropyl |
| | alcohol, acetone, ethyl acetate. |

SECTION 14: Transport information

| 14.1 UN-Number · ADR, ADN, | 2209 |
|-----------------------------------|-----------|
| IMDG, IATA: | |
| 14.2 UN proper shipping name · | FORMAMIDE |
| ADR, ADN, IMDG, IATA: | |
| 14.3 Transport hazard class(es) · | 8 |
| ADR, ADN, IMDG, IATA: | |



| 14.4 Packing group · ADR, IMDG, IATA: | 3 |
|---------------------------------------|---------------------|
| 14.5 Environmental hazards: | None |
| 14.6 Special precautions for user: | Handle responsibly. |

SECTION 15: Regulatory information

| 15.1 Safety, health and | Directive 2012/18/EU, under that |
|----------------------------------|-------------------------------------|
| environmental | this substance is not classified in |
| regulations/legislation specific | listed substance |
| for the substance or mixture | |
| Directive 2012/18/EU | |
| Named dangerous substances: | This substance is not listed in the |
| | annex 1 to the directive. |
| 15.2 Chemical safety assessment: | Chemical assessment has been |
| | carried out under REACH |
| | regulation. |

SECTION 16: Other information

The data included was derived from international authoritative database and provided by the enterprise. Other information was based on the present state of our knowledge. We try to ensure the correctness of all information. However, due to the diversity of information sources and the limitations of our knowledge, this document is only for user's reference. Users should make their independent judgment of suitability of this information for their particular purposes. We do not assume responsibility for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product.

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