Material Safety Data Sheet

FORMAMIDE (RXSOL-19-1192-220)

1. Product and Company Identifaction

Porduct Name	FORMAMIDE
Part Number	RXSOL-19-1192-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
VASHI ,NEW BOMBAY 400703 INDIA

Branch : Kandla, Mumbai , Chennai, Vizag, Kolkata, UAE, OMAN, CANADA and KENYA

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2. Composition / informationon ingredients

Chemical Name	Cas No	EC No	Whight	Formula
FORMAMIDE	75-12-7	200-842-0	= 100 %	CH_3NO

3. Hazards Identification

Signal Word	Danger
Hazard Statements	H351 Suspected of causing cancer. H360D May damage the unborn child.
Precautionary statements	P202 Do not handle until all safety precautions have been read and understood. 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.
Supplemental Hazard Statements	None
Other hazards	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

4. First Aid Measures

General advice	Show this material safety data sheet to the doctor in attendance.
If inhaled	After inhalation: fresh air. Call in physician.
Eye Contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
Swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.
Most important symptoms and effects, both acute and delaye	The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Indication of any immediate medical attention and special treatment needed	No data available

5. Fire-fighting Measures

Suitable extinguishing media	Water Foam Carbon dioxide (CO2) Dry powder
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given.
Special hazards arising from the substance or mixture	Carbon oxides Nitrogen oxides (NOx) Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.
Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
Enviromental Precaution	Do not let product enter drains.
Methods and materials for containment and cleaning	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.
Advice on safe handling	Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols.
Storage conditions	Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.
Storage class	Storage class (TRGS 510): 6.1C: Combustible, acute toxic Cat.3 / toxic compounds or compounds which causing chronic effects
Specific end use(s)	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses
Body Protection	protective clothing
Skin protection	This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Full contact Material: Latex gloves Minimum layer thickness: 0,6 mm Break through time: 480 min Material tested:Lapren® (KCL 706 / Aldrich Z677558, Size M) This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de). Splash contact Material: Nitrile rubber Minimum layer thickness: 0,11 mm Break through time: 240 min Material tested:KCL 741 Dermatril® L
Respiratory protection	Recommended Filter type: Filter A (acc. to DIN 3181) for vapours of organic compounds The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.
Control of environmental exposure	Do not let product enter drains.

9. Physical and chemical properties

Physical state	Viscous Liquid

Colour	Colorless
Odour	Odorless
Odor Threshold	Not Applicable
pH	4 - 10 at 200 g/l at 20 °C
Melting Point	2 - 3 °C - lit.
Boiling Point	210 °C - lit.
Flash Point	152 °C
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limits	19 %(V) / 2,7 %(V)
Autoignition temperature	> 500 °C at 1.013,25 hPa
Decomposition temperature	> 180 °C
Vapour pressure	0,08 hPa at 20 °C
Viscosity	dynamic: 3,76 mPa.s at 20 °C
Density	1,134 g/cm3 at 25 °C - lit.
Relative Density	No data available
Partition coefficient	log Pow: -0,82 at 25 °C - Bioaccumulation is not expected.
Explosive properties	No data available
Solubility	completely miscible
Particle characteristics	No data available

10. Stability and reactivity

Reactivity	Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .
Possibility of hazardous reactions	Exothermic reaction with: Oxidizing agents bases Risk of explosion with: furfuryl alcohol Oxides of phosphorus hydrogen peroxide iodine with pyridine and Sulfur trioxide A risk of explosion and/or of toxic gas formation exists with the following substances: water separating agents Possible formation of: Hydrogen cyanide (hydrocyanic acid)
Conditions to avoid	Heat. Strong heating.
Incompatible materials	No data available
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - male and female - 5.325 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rat - male - 4 h - > 21 mg/l - vapor (OECD Test Guideline 403) LD50 Dermal - Rat - male and female - > 3.000 mg/kg Remarks: (ECHA)
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 20 h Remarks: (ECHA)
Serious eye damage/irritation	Eyes - Rabbit Result: slight irritation (OECD Test Guideline 405)
Respiratory or skin sensitization	No data available
Carcinogenicity	Suspected of causing cancer.
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: in vitro test Test system: Other cell types Metabolic activation: without metabolic activation Method: Regulation (EC) No. 440/2008, Annex, B.21 Result: positive Test Type: in vitro test Test system: Embryo Metabolic activation: without metabolic activation Result: negative Remarks: (ECHA) Test Type: In vivo micronucleus test Species: Mouse Cell type: Red blood cells (erythrocytes) Application Route: Oral Method: OECD Test Guideline 474 Result: negative Test Type: In vivo micronucleus test Species: Mouse Cell type: Bone marrow Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: positive Test Type: Genotoxicity in vivo Species: Drosophila melanogaster Application Route: Intraperitoneal injection Method: OECD Test Guideline 477 Result: negative Test Type: dominant lethal test Species: Mouse Application Route: Intraperitoneal injection Method: OECD Test Guideline 478 Result: negative
Reproductive toxicity	May damage the unborn child.

Specific target organ toxicity - single exposure	No data available
Additional Information	Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Repeated dose toxicity - Rat - male and female - Oral - 90 d - NOAEL (No observed adverse effect level) - 40 - 80 mg/kg Remarks: Subchronic toxicity Repeated dose toxicity - Rat - male - Inhalation - 14 Days Repeated dose toxicity - Rat - male and female - Dermal - 90 d - NOAEL (No observed adverse effect level) - 100 mg/kg RTECS: LQ0525000 Gastrointestinal disturbance To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Possible effect after contact with substance: ataxia (impaired locomotor coordination) Absorption may result in damage of the following: Liver Kidney Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice. Blood - Irregularities - Based on Human Evidence

12. Ecological information

Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 99 % - Readily biodegradable. (OECD Test Guideline 301A)
Toxicity to fish	static test LC50 - Leuciscus idus (Golden orfe) - 6.569 mg/l - 96 h (DIN 38412 part 15)
Toxicity to daphnia and other aquatic invertebrates	static test EC50 - Daphnia magna (Water flea) - > 500 mg/l - 48 h (Regulation (EC) No. 440/2008, Annex, C.2)
Toxicity to bacteria	static test EC50 - activated sludge - > 1.000 mg/l - 30 min (OECD Test Guideline 209)
Toxicity to algae	static test ErC50 - Desmodesmus subspicatus (green algae) - > 500 mg/l - 96 h (DIN 38412)
Mobility in soil	No data available
Results of PBT and vPvB assessment	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Endocrine disrupting properties	Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.
Other adverse effects	When discharged properly, no impairments in the function of adapted biological wastewater treatment plants are to be expected. Discharge into the environment must be avoided. Adsorbed organic bound halogens (AOX) Remarks: Product does not contain any organic halogens.

13. Disposal considerations

Waste treatment	Method	No data available

14. Transport information

UN number	ADR/RID:- IMDG:- IATA: -
UN proper shipping name	ADR/RID:Not dangerous goods IMDG:Not dangerous goods IATA:Not dangerous goods
Transport hazard class(es)	ADR/RID: - IMDG: - IATA:-
Packaging group	ADR/RID:- IMDG: - IATA: -
Environmental hazards	ADR/RID: No IMDG: No IATA: No
Special precautions for user	No data available
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Other regulations	Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.
Chemical Safety Assessment	For this product a chemical safety assessment was not carried out

16. Other information

Other Information	The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and weassume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Rx Marine International has been advised of the possibility of such damages.