Material Safety Data Sheet

4-pyridinecarboxylic acid (RXSOL-61-6396-100)

1. Product and Company Identifaction

Product Name	4-Pyridinecarboxylic acid
Product Type	RXSOL-61-6396-100

Company Details:
RX MARINE INTERNATIONAL
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VASHI ,NEW BOMBAY 400703 INDIA

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2. Composition / informationon ingredients

Composition/information on ingredients

Formula	$C_6H_5NO_2$ (Hill)
CAS-No	55-22-1
EC-No	200-228-2
Molar mass	123,11 g/mol

3. Hazards Identification

Classification (REGULATION (EC) No 1272/2008) : Eye irritation, Category 2, H319 For the full text of the R-phrases mentioned in this Section, see Section 16.

Signal word	Warning
Hazard statement:	H319 Causes serious eye irritation.
Precautionary statements:	P260 Do not breathe dust. P262 Do not get in eyes, on skin, or on clothing.
P305 + P351 + P338 IF IN EYES:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Symbol(s)	Xi	Irritant
R-phrase(s)	36	Irritating to eyes.

S-phrase(s)	22-24-26	Do not breathe dust. Avoid contact with skin. In case of contact with eyes, rinseimmediately plent of water and seek medical advice

EC-No. 200-228-2

4. First Aid Measures

After inhalation	Fresh air.
After skin contact	Wash off with plenty of water. Remove contaminated clothing.
After swallowing	Immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delayed	Irritant effects
Indication of immediate medical attention and special treatment needed	No information available.

5. Fire-fighting Measures

Special hazards arising from the substance or mixture:

Combustible material	Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution ofnitrogen oxides
Advice for firefighters	Special protective equipment for fire-fighters In the event of fire, wear self-contained breathing apparatus
Further information	Prevent fire extinguishing water from contaminating surface water or the ground water system. Suppress (knock down) gases/vapours/mists with a water spray jet.

6. Accidental Release Measures

Advice for non emergency personnel:	Avoid substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult anexpert
Advice for emergency responders	Protective equipment see section 8
Environmental precautions	Do not empty into drains.
Methods and materials for containment and cleaning up:	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7.2 and 10.5). Take up dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Reference to other sections	Indications about waste treatment see section 13

7. Handling and Storage

Precautions for safe handling	Observe label precautions. Conditions for safe storage, including any incompatibilities Tightly closed. Dry.
Storage temperature	no restrictions
Storage temperature	Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

8. Exposure controls and personal protection

Control parameters:
Contains no substances with occupational exposure limit values.

Exposure controls: Engineering measures
Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

Individual protection measures: Protective clothing needs to be selected specifically for the workplace, depending onconcentrations and quantities of the hazardous substances handled. The chemical resistance ofthe protective equipment should be enquired at the respective supplier.Hygiene measuresChange contaminated clothing. Preventive skin protection recommended. Wash hands afterworking with substance.

Eye/face protection: Safety glasses

Hand protection:
full contact:

Glove material	Nitrile rubbe
Glove thickness	0,11 mm
Break through time	> 480 min

splash contact:

Glove material	Nitrile rubbe
Glove thickness	0,11 mm
Break through time	> 480 min

The protective gloves to be used must comply with the specifications of EC Directive 89/686/EEC and the related standard EN374

Other protective equipment: protective clothing:

Respiratory protection: required when dusts are generated.
Recommended Filter type: Filter P 2 (acc. to DIN 3181) for solid and liquid particles of harmful substances 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.
Environmental exposure controls: Do not empty into drains.

9. Physical and chemical properties

Information on basic physical and chemical properties :

Form	Powder
Colour	White
Odour	Odourless
Odour Threshold	No information available.
pH	3 - 4 at 6 g/l 20 °C (saturated solution)

Melting point	315 - 319 °C
Boiling point/boiling range	260 °C at 20 hPa
Flash point	No information available.
Evaporation rate	No information available.
Flammability (solid, gas)	No information available.
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Vapour pressure	No information available.
Relative vapour density	4,2
Relative density	No information available.
Water solubility	6 g/l at 20 °C
Partition coefficient: noctanol/water	log Pow: 0,32 Method: (experimental) (Lit.) Bioaccumulation is not expected (log Pow 1).
Autoignition temperature	No information available.
Decomposition temperature	No information available.
Viscosity, dynamic	No information available.
Explosive properties	No information available.
Oxidizing properties	No information available.

Other data: Bulk density 500 kg/m³

10. Stability and reactivity

Reactivity	The following applies in general to flammable organic substances and preparations: incorrespondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.
Chemical stability	The product is chemically stable under standard ambient condition room temperature). Possibility of hazardous reactions(
Violent reactions possible with:	Oxidizing agents, bases, strong reducing agents, acids
Conditions to avoid	no information available
Incompatible materials	no information available
Hazardous decompositionproducts	in the event of fire: See chapter 5.

11. Toxicological information

Information on toxicological effects:

Acute oral toxicity	LD50 rat
Dose	5.000 mg/kg
Symptoms	Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract

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Acute inhalation toxicity:

Symptoms	Possible damages, mucosal irritations
Skin irritation	Slight irritation
Eye irritation	Causes serious eye irritation.
Specifictargetorgantoxicity single exposure	The substance or mixture is not classified as specific target organ toxicant, single exposure.
Specific target organ toxicity - repeated exposure	The substance or mixture is not classified as specific target organ toxicant, repeated exposure
Aspiration hazard	No aspiration toxicity classification
Further information	Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

12. Ecological information

Toxicity:

Toxicity to daphnia and other aquatic invertebrates	EC50
Species	Tetrahymen pyriformis
Dose	2.932 mg/l
Exposure time	60 h (ECOTOX Database)
Persistence and degradability	No information available.
Bioaccumulative potential	Partition coefficient: n-octanol/water
log Pow	0,32
Method	Experimental) (Lit.) Bioaccumulation is not expected (log Pow 1).
Mobility in soil	No information available.

13. Disposal considerations

Waste treatment methods
Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

14. Transport 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:	EU regulations
Major Accident Hazard	96/82/EC
Legislation:	Directive 96/82/EC does not apply
Occupational restrictions	Take note of Dir 94/33/EC on the protection of young people at National legislation
Storage class VCI	10 - 13 Other liquids and solids
Chemical Safety Assessment:	For this product a chemical safety assessment was not carried out.

16. Other information

Text of R and S phrase codes used in this safety data sheet:- R34: Causes burns; R36: Irritating to eyes; R37: Irritating to respiratory system; R41: Risk of serious damage to eyes. The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when product used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer