Material Safety Data Sheet

Sodium Cyanide (RXSOL-19-9510-050)

1. Product and Company Identifaction

Product Name	Sodium cyanide
Part Number	71431

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

Stock Point : INDIA

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	**123@rxmarine.com**
Website	**www.rxmarine.com**

2. Composition / informationon ingredients

Substance

Formula 49,01 g/mol

CAS-No 143-33-9

EC-No. 205-599-4

Index-No 006-007-00-5

Component	Classification	Concentration
sodium cyanide CAS-No. 143-33-9 EC-No. 205-599-4 Index-No.Index-No. 006-007-005	Met. Corr. 1; Acute Tox. 1; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H290, H300, H330, H310, H372, H400, H410 M-Factor - Aquatic Acute: 10 - Aquatic Chronic: 1	= 100 %

3. Hazards Identification

Classification of the substance or mixture	According to Regulation (EC) No 1272/2008 Corrosive to Metals (Category 1), H290 Acute toxicity, Oral (Category 1), H300 Acute toxicity, Inhalation (Category 1), H330 Acute toxicity, Dermal (Category 1), H310 Specific target organ toxicity - repeated exposure (Category 1), Thyroid, H372 Short-term (acute) aquatic hazard (Category 1), H400 Long-term (chronic) aquatic hazard (Category 1), H410 For the full text of the H-Statements mentioned in this Section, see Section 16.
Label elements Labelling according Regulation (EC) No 1272/2008	
Signal Word	Danger

Hazard Statements	H290 May be corrosive to metals. H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled. H372 Causes damage to organs (Thyroid) through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects. Precautionary statement(s) P262 Do not get in eyes, on skin, or on clothing. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P314 Get medical advice/ attention if you feel unwell.
Supplemental Hazard information (EU)	EUH032 Contact with acids liberates very toxic gas.
Reduced Labeling (= 125 ml)	
Signal Word	Danger
Hazard statement(s)	H372 Causes damage to organs through prolonged or repeated exposure. H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled. Precautionary statement(s) P262 Do not get in eyes, on skin, or on clothing. P280 Wear protective gloves/ protective clothing. P302 + P352 + P310 IF ON SKIN: Wash with plenty of water. Immediately call a POISON CENTER/ doctor. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P314 Get medical advice/ attention if you feel unwell.
Supplemental Hazard information (EU)	EUH032 Contact with acids liberates very toxic gas
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	First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.
Eye Contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
Skin Contact	Take off immediately all contaminated clothing. Rinse skin with water/ shower. Call a physician immediately.
Inhalation:	Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.
Swallowing	If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. 4.2 Most important symptoms and effects, both acute and delayed The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11
Ingestion:	Do not induce vomiting. Obtain medical attention.If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration.
Most important symptoms and effects, both acute and delayed	The most important known symptoms and effects are described in the labelling (see section 3) 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 Sodium oxides Combustible. Development of hazardous combustion gases or vapours possible in the event of fire.
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.
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.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.For personal protection see section 8.
Methods and materials for containment and cleaning up	Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions(see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Advice on safe handling	Work under hood. Do not inhale substance/mixture.
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.
Conditions for safe storage, including any incompatibilities	No metal containers.Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.Do not store near acids.
Conditions for safe storage, including any incompatibilities Storage conditions	No metal containers.Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons. Do not store near acids.
Storage class	Storage class (TRGS 510): 6.1A: Combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

8. Exposure controls and personal protection

Control parameters	Ingredients with workplace control parameters
Personal protective equipment	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 Respiratory protection Recommended Filter type: Filter B-(P3) 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

Colour	White
Odour	Odourless
pH	3.2 - 3.5 at 100 g/l 20 °C
Melting point/freezing point	563,7 °C - lit.
Initial boiling point and boiling range	1.500 °C at 1,013 hPa
Flammability	No data available
Upper/lower flammability or explosive limits	No data available
Ignition temperature	No information available.
Flash point	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
pH	11,0 - 12,0 at 49,0 g/l at 25 °C
Viscosity, kinematic	No data available
Viscosity, dynamic	No data available
Water solubility	370 g/l at 20 °C - completely soluble
Partition coefficient: n-octanol/water	Not applicable for inorganic substances
Vapor pressure	1 hPa at 817 °C
Density	1,59 kg/m3 at 20 °C
Relative density	No data available
Relative vapor density	No data available
Particle characteristics	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Other safety information	None
Dissociation constant	Dissociation constant ca.9,36 at 20 °C- OECD Test Guideline 112

10. Stability and reactivity

Reactivity	The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed. Contact with acids liberates very toxic gas.
Chemical stability	The product is chemically stable under standard ambient conditions (room temperature) .

Possibility of hazardous reactions	Risk of explosion with: chlorates nitrites nitrates Oxidizing agents Release of: Hydrogen cyanide (hydrocyanic acid) Violent reactions possible with: Nitric acid urea Carbon dioxide (CO_2) (in the presence of atmospheric oxygen and/or moisture) Release of: Hydrogen cyanide (hydrocyanic acid) Generates dangerous gases or fumes in contact with: alkali salts Acids Water Release of: Hydrogen cyanide (hydrocyanic acid) Generates dangerous gases or fumes in contact with: Acids
Conditions to avoid	no information available
Incompatible materials	Aluminum, Metals, Zinc
Hazardous decomposition products	In the event of fire: see section 5

11. Toxicological information

Acute toxicity	LD50 Oral - Rat - female - 5,09 mg/kg Remarks: (ECHA) LC50 Inhalation - Rat - male - 1 h - 63 ppm - gas (OECD Test Guideline 403) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: hydrogen cyanide LD50 Dermal - Rabbit - female - 7,35 mg/kg Remarks: (ECHA) LD50 Dermal - Rabbit - 10,4 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Tremor. Lungs, Thorax, or Respiration:Dyspnea.
Skin corrosion/irritation	No data available
Serious eye damage/eye irritation	No data available
Serious eye damage/eye irritation	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: US-EPA Result: negative Test Type: Chromosome aberration test Species: Rat Application Route: Oral Method: US-EPA Result: negative
Carcinogenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure. - Thyroid
Aspiration hazard	No data available
Endocrine disrupting properties Product: 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.

RTECS: VZ7525000
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

12. Ecological information

Toxicity to fish	flow-through test LC50 - Gasterosteus aculeatus - 0,0988 mg/l - 96 h .Remarks: (referred to cyanide ions)(ECHA)
Toxicity to daphnia and other aquatic invertebrates	semi-static test EC50 - Chironomus riparius (harlequin fly) - 0,012 mg/l - 48 h. semi-static test NOEC - Chironomus riparius (harlequin fly) - 0,006 mg/l - 48 h
Toxicity to algae	EC50 - Nitzschia closterium - 0,051 mg/l - 72 h
Toxicity to bacteria	EC50 - Bacteria - 4,9 mg/l - 6 h Remarks: (ECHA)
Biodegradability aerobic	Exposure time 42 d Result: ca.99 % - Inherently biodegradable. Remarks: (ECHA) Chemical Oxygen Demand (COD) 816 mg/g Remarks: (IUCLID)
Bioaccumulative potential	No data available
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 Product: 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.

13. Disposal considerations

Waste treatment Method	Product See www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

14. Transport information

UN number ADR/RID: 1689	IMDG: 1689	IATA: 1689
UN proper shipping name		
ADR/RID: SODIUM CYANIDE, SOLID	IMDG: SODIUM CYANIDE, SOLID	IATA: Sodium cyanide, solid
Transport hazard class(es)		
ADR/RID: 6.1	IMDG: 6.1	IATA: 6.1
Packaging group ADR/RID: I	IMDG: I	IATA: I
Environmental hazards ADR/RID: yes	IMDG Marine pollutant: yes	IATA: no

15. Regulatory information

Safety,healthandenvironmentalregulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
National legislation	Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ACUTE TOXIC :ENVIRONMENTAL HAZARDS
Other regulations	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.