

# RO Biocide (RXSOL-33-3355-210)

MATERIAL SAFETY DATA SHEET • SALALAH CHEMICAL, OMAN

## 1. Product and Company Identification

[www.rxmarine.com](http://www.rxmarine.com)

|              |                   |
|--------------|-------------------|
| Product Name | RO Biocide        |
| Part Number  | RXSOL-33-3355-210 |

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

|         |                                                          |
|---------|----------------------------------------------------------|
| Phone   | +91 22 20871200 - 1400                                   |
| Fax     | +91 22 27612100 ::::AOH :0091 9821214367                 |
| Email   | <a href="mailto:mail@rxmarine.com">mail@rxmarine.com</a> |
| Website | <a href="http://www.rxmarine.com">www.rxmarine.com</a>   |

## 2. Composition / Information on ingredients

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| Product name | Cas No     | EC No     | Weight | Formula |
|--------------|------------|-----------|--------|---------|
| RO Biocide   | 10222-01-2 | 233-539-7 | 10-30% | -       |

## 3. Hazards Identification

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|                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Word                                | Danger                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Hazard Statements                          | H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Precautionary statements                   | P261 Avoid breathing vapour/spray. P264 Wash contaminated skin thoroughly after handling. P272 Contaminated work clothing should not be allowed out of the workplace. P280 Wear protective gloves/protective clothing/eye protection/face protection. P302+P352 IF ON SKIN: Wash with plenty of water. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor. P333+P313 If skin irritation or rash occurs: Get medical advice/attention. P362+P364 Take off contaminated clothing and wash it before reuse. P501 Dispose of contents/container in accordance with national regulations. P401 Store in accordance with national regulations |
| Classification of the substance or mixture | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Supplemental Hazard Statements             | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Other hazards                              | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

## 4. First Aid Measures

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|                                                                            |                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                                                             | No data available                                                                                                                                                                                                                                                                 |
| If inhaled                                                                 | No data available                                                                                                                                                                                                                                                                 |
| Eye Contact                                                                | Remove affected person from source of contamination. Remove any contact lenses and open eyelids wide apart. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Continue to rinse for at least 15 minutes and get medical attention |
| Swallowed                                                                  | No data available                                                                                                                                                                                                                                                                 |
| Skin Contact                                                               | Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues. Wash with polyethylene glycol 400 if available                                                    |
| Inhalation                                                                 | Move affected person to fresh air at once. Rinse nose and mouth with water. Keep affected person warm and at rest. Get medical attention immediately. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen.                 |
| Ingestion                                                                  | Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention.                                                                                                                                          |
| Most important symptoms and effects, both acute and delayed                | None noted, however, the casualty should be transferred to hospital if any unusual adverse symptoms develop.                                                                                                                                                                      |
| Indication of any immediate medical attention and special treatment needed | No specific recommendations. If in doubt, get medical attention promptly                                                                                                                                                                                                          |

## 5. Fire-fighting Measures

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|                                                       |                                                                                                                                                                                                                                                                                   |
|-------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                                          | No data available                                                                                                                                                                                                                                                                 |
| Suitable extinguishing media                          | Water spray, fog or mist. Foam. Dry chemicals.                                                                                                                                                                                                                                    |
| Unsuitable extinguishing media                        | No data available                                                                                                                                                                                                                                                                 |
| Special hazards arising from the substance or mixture | No unusual fire or explosion hazards noted                                                                                                                                                                                                                                        |
| Further information                                   | No data available                                                                                                                                                                                                                                                                 |
| Hazardous combustion products                         | When heated, vapours/gases hazardous to health may be formed.                                                                                                                                                                                                                     |
| Advice for firefighters                               | Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. |
| Protective Equipment                                  | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing                                                                                                                                                                              |
| Specific Hazards Arising from the Chemical            | No data available                                                                                                                                                                                                                                                                 |

## 6. Accidental Release Measures

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|                                                                     |                                                                                                                                                                                                                                                                 |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | No data available                                                                                                                                                                                                                                               |
| Spillage                                                            | No data available                                                                                                                                                                                                                                               |
| Personal Protection                                                 | Wear protective clothing as described in Section 8 of this safety data sheet.                                                                                                                                                                                   |
| Environmental Precaution                                            | Do not discharge into drains or watercourses or onto the ground. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Observe all national regulations         |
| Methods and materials for containment and cleaning                  | Stop leak if possible without risk. Absorb in vermiculite, dry sand or earth and place into containers. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. For waste disposal, see Section 13. |
| Reference to other sections                                         | For personal protection, see Section 8.                                                                                                                                                                                                                         |

## 7. Handling and Storage

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|                                                             |                                                                                                                                                                                                                                                                                                    |
|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on protection against fire and explosion             | No data available                                                                                                                                                                                                                                                                                  |
| Incompatible materials                                      | No data available                                                                                                                                                                                                                                                                                  |
| Hygiene measures                                            | Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke. |
| Advice on safe handling                                     | Avoid spilling. Avoid contact with skin and eyes. Good personal hygiene procedures should be implemented.                                                                                                                                                                                          |
| Conditions for safe storage including any incompatibilities | No data available                                                                                                                                                                                                                                                                                  |
| Storage conditions                                          | Keep container tightly closed, in a cool, well ventilated place. Only store in correctly labelled containers. Keep away from food, drink and animal feeding stuffs. Store under well-ventilated conditions at a temperature below 25°C.                                                            |
| Storage class                                               | Chemical storage                                                                                                                                                                                                                                                                                   |
| Specific end use(s)                                         | Use as directed by supplier                                                                                                                                                                                                                                                                        |
| Advice on general occupational hygiene                      | No data available                                                                                                                                                                                                                                                                                  |

## 8. Exposure controls and personal protection

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|                     |                                                                                                                                                                                                |
|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Exposure controls   | Personal protective equipment                                                                                                                                                                  |
| Engineering Control | Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients. All handling should only take place in well-ventilated areas. |
| Eye/face protection | Wear tight-fitting, chemical splash goggles or face shield. Personal protective equipment for eye and face protection should comply with European Standard EN166.                              |

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Body Protection          | Protective Clothing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Skin protection          | It is recommended that chemical-resistant, impervious gloves are worn. To protect hands from chemicals, gloves should comply with European Standard EN374. Wear protective gloves made of the following material: Neoprene, nitrile, polyethylene or PVC. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. Wear appropriate clothing to prevent any possibility of skin contact |
| Respiratory protection   | No specific recommendations. Respiratory protection may be required if excessive airborne contamination occurs.                                                                                                                                                                                                                                                                                                                                                                                                               |
| Other Protection Measure | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |

## 9. Physical and chemical properties

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|                                              |                                                          |
|----------------------------------------------|----------------------------------------------------------|
| Physical state                               | Liquid                                                   |
| Colour                                       | Colourless to brown solution                             |
| Odour                                        | Mild.                                                    |
| Odor Threshold                               | No data available                                        |
| pH                                           | 5 approx.                                                |
| Melting Point                                | -50°C                                                    |
| Boiling Point                                | >70°C @                                                  |
| Flash Point                                  | >182°C PMCC                                              |
| Evaporation Rate                             | No data available                                        |
| Flammability (solid, gas)                    | No data available                                        |
| Explosive limits                             | No data Available                                        |
| Upper/lower flammability or explosive limits | No data available                                        |
| Autoignition temperature                     | No data available                                        |
| Decomposition temperature                    | > 140 °C                                                 |
| Vapour pressure                              | 18.9 mm Hg @ °C                                          |
| Viscosity                                    | 20 cP @ 25°C                                             |
| Density                                      | No data available                                        |
| Relative Density                             | 1.20-1.30 @ °C                                           |
| Specific Gravity                             | No data available                                        |
| Partition coefficient                        | Log Pow -0,81 - Bioaccumulation is not expected., (Lit.) |
| Explosive properties                         | No data available                                        |
| Solubility                                   | Soluble in water                                         |
| Ignition temperature                         | No data available                                        |
| Particle characteristics                     | No data available                                        |

## 10. Stability and reactivity

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|                                    |                                                                                       |
|------------------------------------|---------------------------------------------------------------------------------------|
| Reactivity                         | There are no known reactivity hazards associated with this product.                   |
| Chemical stability                 | The product is chemically stable under standard ambient conditions (room temperature) |
| Possibility of hazardous reactions | No data available                                                                     |
| Conditions to avoid                | Avoid excessive heat for prolonged periods of time                                    |
| Incompatible materials             | Strong oxidising agents. Strong alkalis. Strong reducing agents.                      |
| Hazardous decomposition products   | When heated, vapours/gases hazardous to health may be formed.                         |

## 11. Toxicological information

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|                                                  |                                                                                                                                               |
|--------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity                                   | ATE oral (mg/kg) 2,550.0 Acute toxicity - inhalation ATE inhalation (dusts/mists mg/l) 6.25                                                   |
| Inhalation                                       | Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following Coughing. |
| Ingestion                                        | May cause discomfort if swallowed.                                                                                                            |
| Respiratory or skin sensitization                | May cause sensitisation by skin contact. This product is strongly irritating. Prolonged contact may cause burns.                              |
| Serious eye damage                               | Causes serious eye irritation. May cause serious eye damage.                                                                                  |
| Germ cell mutagenicity                           | No data available                                                                                                                             |
| Reproductive toxicity                            | No data available                                                                                                                             |
| Specific target organ toxicity - single exposure | No data available                                                                                                                             |
| Additional Information                           | No data available                                                                                                                             |

## 12. Ecological information

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|                                                     |                                                                                                  |
|-----------------------------------------------------|--------------------------------------------------------------------------------------------------|
| Persistence and degradability                       | Not persistent Expected to degrade in the environment                                            |
| Toxicity to fish                                    | LC50, 96 hours: 1.0 mg/l, Onchorhynchus mykiss (Rainbow trout)                                   |
| Toxicity to daphnia and other aquatic invertebrates | EC50, 48 hours: 1.24 mg/l, Daphnia magna LC50, : 354 mg/kg, Colinus Virginianus (Bobwhite Quail) |
| Toxicity                                            | The product contains a substance which is harmful to aquatic organisms.                          |
| Toxicity to bacteria                                | No data available                                                                                |
| Toxicity to algae                                   | No data available                                                                                |
| Products Biodegradation                             | No data available                                                                                |
| Mobility in soil                                    | The product is soluble in water.                                                                 |
| Results of PBT and vPvB assessment                  | This substance is not classified as PBT or vPvB according to current EU criteria.                |
| Endocrine disrupting properties                     | No data available                                                                                |

|                       |                                                                                            |
|-----------------------|--------------------------------------------------------------------------------------------|
| Other adverse effects | The product contains substances that may be harmful to aquatic life in high concentrations |
|-----------------------|--------------------------------------------------------------------------------------------|

### 13. Disposal considerations

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|                        |                                                                                                                                                                                        |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General information    | Waste is classified as hazardous waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.                    |
| Contaminated packaging | No data available                                                                                                                                                                      |
| Disposal Method        | Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Dispose of waste via a licensed waste disposal contractor. |

### 14. Transport information

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|                              |                                                                                                                                                                                                                                        |                          |           |
|------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-----------|
| UN number                    | ADR/RID:1760                                                                                                                                                                                                                           | IMDG:1760                | IATA:1760 |
| UN proper shipping name      | ADR/RID:CORROSIVE LIQUID, N.O.S. (Contains 2, 2-dibromo-3-nitrilopropionamide) IMDG:CORROSIVE LIQUID, N.O.S. (Contains 2, 2-dibromo-3-nitrilopropionamide) IATA:CORROSIVE LIQUID, N.O.S. (Contains 2, 2-dibromo-3-nitrilopropionamide) |                          |           |
| Transport hazard class(es)   | ADR/RID:8                                                                                                                                                                                                                              | IMDG:8                   | IATA:8    |
| Packaging group              | ADR/RID:III                                                                                                                                                                                                                            | IMDG:III                 | IATA:III  |
| Environmental hazards        | ADR/RID:No                                                                                                                                                                                                                             | IMDG Marine pollutant:No | IATA:No   |
| Special precautions for user | Tunnel restriction code (E)                                                                                                                                                                                                            |                          |           |
| Further information          | No data available                                                                                                                                                                                                                      |                          |           |

### 15. Regulatory information

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|                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Safety, health and environmental regulations/legislation specific for the substance or mixture | Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended). |
| Other regulations                                                                              | Take note of Dir 94/33/EC on the protection of young people at work.                                                                                                                                                                                                                                                                                                                        |
| Chemical Safety Assessment                                                                     | A Chemical Safety Assessment has been carried out for this substance.                                                                                                                                                                                                                                                                                                                       |

### 16. Other information

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|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Other Information | <p>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 we assume 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 we 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.</p> <p>DISCLAIMER OF LIABILITY :The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This MSDS was prepared and is to be used only for this product. If the product is used as a component in another product, this MSDS information may not be applicable.</p> |
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