



# RXSOL

VARANASI CHEMICAL | RX MARINE INTERNATIONAL

**RXSOL-33-3363-250**

RO Coagulant 510

## Material Safety Data Sheet (MSDS)

### 1. Product and Company Identification

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|              |                   |
|--------------|-------------------|
| Product Name | RO Coagulant 510  |
| Part Number  | RXSOL-33-3363-250 |

#### 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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| Chemical Name                             | CAS -     | EC number | Weight |
|-------------------------------------------|-----------|-----------|--------|
| 1-Hydroxyethylidene-1,1-diphosphonic acid | 2809-21-4 | --        | 1-10   |
| Sodium Bisulfite                          | 7631-90-5 | --        | <1     |

### 3. Hazards Identification

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|                                            |                                                                                                                                                               |
|--------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal Word                                | Danger                                                                                                                                                        |
| Hazard Statements                          | May cause allergy or asthma symptoms or breathing difficulties if inhaled. Causes serious eye damage.                                                         |
| Precautionary statements response          | Avoid breathing fumes, mist, vapors, or spray. Wear respiratory protection. Wear protective gloves, protective clothing, eye protection, and face protection. |
| Classification of the substance or mixture | Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.                                                                               |
| Supplemental Hazard Statements             | EUH019 May form explosive peroxides.                                                                                                                          |

|               |                                                                                                                                                                                                    |
|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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

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|                                                                            |                                                                                                                                                                                                                                                  |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| General advice                                                             | Show this material safety data sheet to the doctor in attendance.                                                                                                                                                                                |
| If inhaled                                                                 | After inhalation: fresh air.                                                                                                                                                                                                                     |
| Eye Contact                                                                | Flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally to ensure complete rinsing. Remove contact lenses if present and easy to do, then resume rinsing. Get medical attention if symptoms occur. |
| Swallowed                                                                  | After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.                                                                                                                                                |
| Skin Contact                                                               | Remove contaminated clothing and wash the affected area with soap and water. Wash contaminated clothing before reuse.                                                                                                                            |
| Inhalation                                                                 | If inhaled, move victim to fresh air. Seek emergency medical attention if breathing is difficult; perform artificial respiration if breathing stops.                                                                                             |
| Ingestion                                                                  | If swallowed, DO NOT induce vomiting. Rinse mouth and get emergency medical attention. Do not give anything by mouth unless instructed to do so by a poison center or health care provider.                                                      |
| 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

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|                                                       |                                                                                                                                                                                                                                     |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                                          | May be combustible at high temperature.                                                                                                                                                                                             |
| Suitable extinguishing media                          | Use extinguishing media appropriate for the surrounding fire                                                                                                                                                                        |
| Unsuitable extinguishing media                        | No information available                                                                                                                                                                                                            |
| Special hazards arising from the substance or mixture | Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire. |
| Further information                                   | Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.                                                                                |
| Hazardous combustion products                         | Carbon oxides, nitrogen oxides, sulfur oxides, phosphorous oxides                                                                                                                                                                   |
| 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.                                                                       |
| Protective Equipment                                  | Stay upwind of the fire. Full protective equipment including self-contained breathing apparatus should be used. Use water to cool closed containers. Contain water runoff if possible.                                              |
| Specific Hazards Arising from the Chemical            | Combustion may produce toxic gases..                                                                                                                                                                                                |

## 6. Accidental Release Measures

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|                                                                     |                                                                                                                                                                                                                                                                                                                                                                      |
|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.                                                                            |
| Spillage                                                            | Oxidizing material. Stop leak if without risk. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Prevent entry into sewers, basements or confined areas dike if needed. Eliminate all ignition sources. Call for assistance on disposal.                              |
| Personal Protection                                                 | Evacuate the area of all non-essential personnel. Do not touch spilled material without proper protective equipment. Ventilate the area and mitigate further release if it is safe to do so. Avoid contact with eyes.                                                                                                                                                |
| Environmental Precaution                                            | Do not let product enter drains. Risk of explosion.                                                                                                                                                                                                                                                                                                                  |
| Methods and materials for containment and cleaning                  | Contain spill and soak up with an inert absorbent material and place residues in a properly labeled container for disposal. Avoid discharge into sewer or surface water. Contain spill using trenches, diking, or absorption with an inert material (i.e. sand or earth). Reclaim spilled material into recovery or salvage drums or tank truck for proper disposal. |

## 7. Handling and Storage

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|                                                              |                                                                                                                                                                |
|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Advice on safe handling                                      | Avoid contact with eyes, skin, and clothing. Avoid breathing vapor or mist. Wash hands thoroughly after handling.                                              |
| Advice on protection against fire and explosion              | Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge.                                        |
| Incompatible materials                                       | Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.                      |
| Hygiene measures                                             | Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2. |
| Precautions for safe handling                                | For precautions see section 2.2.                                                                                                                               |
| Conditions for safe storage, including any incompatibilities | Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.                  |
| Storage conditions                                           | Store in a cool, dry, well-ventilated area away from incompatible materials. Keep containers closed when not in use.                                           |
| Storage class                                                | Storage class (TRGS 510): 3: Flammable liquids                                                                                                                 |
| Specific end use(s)                                          | Apart from the uses mentioned in section 1.2 no other specific uses are stipulated                                                                             |
| Advice on general occupational hygiene                       | Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.                                      |
| Requirements for storage                                     | Keep in cool and store under shade.                                                                                                                            |

## 8. Exposure controls and personal protection

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|                   |                                                                                                           |
|-------------------|-----------------------------------------------------------------------------------------------------------|
| Exposure controls | No specific additional engineering controls are required. Provide good natural or artificial ventilation. |
|-------------------|-----------------------------------------------------------------------------------------------------------|

|                                   |                                                                                                                                                                     |
|-----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Engineering Control               | Adequate ventilation, eye-wash station, and emergency shower                                                                                                        |
| Eye/face protection               | Chemical splash goggles                                                                                                                                             |
| Body Protection                   | Flame retardant antistatic protective clothing.                                                                                                                     |
| Skin protection                   | Chemical-resistant gloves and body-covering clothing                                                                                                                |
| Respiratory protection            | Observe published airborne exposure limits. NIOSH approved respirator should be used in accordance with OSHA respiratory protection requirements (29 CFR 1910.134). |
| Other Protection Measure          | Handle in accordance with good industrial hygiene and safety practice.                                                                                              |
| Control of environmental exposure | Do not let product enter drains. Risk of explosion.                                                                                                                 |
| Thermal hazards                   | No data available                                                                                                                                                   |

## 9. Physical and chemical properties

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|                                        |                           |
|----------------------------------------|---------------------------|
| Physical state                         | Clear, liquid             |
| Colour                                 | Pale Yellow               |
| Odour                                  | Mild                      |
| Odor Threshold                         | Not Applicable            |
| pH                                     | 8.0-9.5                   |
| Melting Point                          | No data available         |
| Boiling Point                          | No data available         |
| Flash Point                            | No data available         |
| Evaporation Rate                       | Not Applicable            |
| Flammability (solid, gas)              | No data available         |
| Explosive limits                       | No Data Available         |
| Upper flammability or explosive limits | No data available         |
| Autoignition temperature               | No data available         |
| Decomposition temperature              | No data available         |
| Relative Vapour pressure               | No data available         |
| Density                                | No data available         |
| Vapour Density                         | No data available         |
| Freezing point                         | No data available         |
| Specific Gravity                       | 1.150-1.250               |
| Partition coefficient                  | No data available         |
| Explosive properties                   | No data available         |
| Solubility                             | No data available         |
| Ignition temperature                   | No information available. |
| Particle characteristics               | No data available         |

## 10. Stability and reactivity

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|                                    |                                                                                       |
|------------------------------------|---------------------------------------------------------------------------------------|
| Reactivity                         | Formation of peroxides possible. Vapor/air-mixtures are explosive at intense warming. |
| Stability                          | Stable under normal conditions of storage and handling.                               |
| Possibility of hazardous reactions | No data available                                                                     |
| Conditions to avoid                | Extreme temperatures, incompatibilities                                               |
| Incompatible materials             | Strong acids, oxidizers                                                               |
| Hazardous Polymerization           | Polymerization will not occur.                                                        |

## 11. Toxicological information

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|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|--------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity                                   | LD50 Oral - Rat - 5.400 mg/kg Remarks: Behavioral:Somnolence (general depressed activity). Behavioral:Ataxia. Respiratory disorder (RTECS) LC50 Inhalation - Rat - male and female - 7 h - > 11 mg/l - vapor (OECD Test Guideline 403) Dermal: No data available                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Skin corrosion/irritation                        | Skin irritation with or without pain, burning, itching, redness, and swelling. Symptoms may be exacerbated by open wounds, excoriations, rashes, or other skin breaches.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Serious eye damage/eye irritation                | Eye irritation with or without pain, burning, itching, redness, and discharge.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Respiratory or skin sensitization                | Maximization Test - Guinea pig Result: negative (OECD Test Guideline 406)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Ingestion                                        | Gastrointestinal distress with or without nausea, vomiting, and diarrhea. Ingestion may cause allergic reaction in sulfite-sensitive individuals.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Inhalation                                       | Upper respiratory irritation with or without cough, watering of the eyes, and postnasal drip. Inhalation may induce or exacerbate symptoms of allergy or asthma in sulfite-sensitive individuals                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Carcinogenicity                                  | No components have been identified as carcinogenic by OSHA, NTP, or IARC.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Reproductive toxicity                            | May damage the unborn child. May damage fertility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Specific target organ toxicity - single exposure | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Special Remarks on other Toxi Effects on Humans  | Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reaction, which becomes evident upon re-exposure to this material. Eyes: Causes eye irritation. Ingestion: Causes gastrointestinal (digestive) tract irritation with nausea, vomiting, and diarrhea. May be harmful if swallowed. Inhalation: Causes respiratory tract irritation. May cause chemical pneumonitis and pulmonary edema, inflammation, edema of bronchi and larynx. Chronic Potential Health Effects: Repeated or prolonged skin exposure may cause allergic reactions in sensitive individuals. Repeated or prolonged exposure by inhalation may affect respiration and metabolism. |
| Endocrine disrupting properties                  | 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: KN3339000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.                                                                                                                                                                                                                                                                                                     |

## 12. Ecological information

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1-Hydroxyethylidene-1,1-diphosphonic acid (HEDP)

| Parameter                    | Result       |
|------------------------------|--------------|
| 96 hr LC50, Bluegill sunfish | >10,000 mg/L |
| 96 hr LC50, Rainbow trout    | 4,900 mg/L   |
| 48 hr EC50, Daphnia magna    | 2,800 mg/L   |

#### Sodium bisulfite

| Parameter                    | Result     |
|------------------------------|------------|
| 96 hr LC50, Bluegill sunfish | >1,000 ppm |
| 96 hr LC50, Fathead minnow   | 59 mg/L    |
| 96 hr LC50, Rainbow trout    | >1,000 ppm |
| 48 hr EC50, Daphnia magna    | 140 mg/L   |

|                                                     |                                                                                                                                                                                                                                                             |
|-----------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Persistence and degradability                       | No information available                                                                                                                                                                                                                                    |
| Toxicity to fish                                    | LC50 - Pimephales promelas (fathead minnow) - 8.569 mg/l - 96 h Remarks: (IUCLID)                                                                                                                                                                           |
| Toxicity to daphnia and other aquatic invertebrates | Semi-static test EC50 - Daphnia magna (Water flea) - 943 mg/l - 48 h (OECD Test Guideline 202)                                                                                                                                                              |
| Toxicity to algae                                   | Semi-static test ErC50 - Pseudokirchneriella subcapitata (green algae) - > 10.000 mg/l - 72 h (OECD Test Guideline 201)                                                                                                                                     |
| Toxicity to bacteria                                | Static test EC20 - activated sludge - 1.067 mg/l - 3 h (OECD Test Guideline 209)                                                                                                                                                                            |
| Mobility in soil                                    | No Information 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                     | 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                               | No data available                                                                                                                                                                                                                                           |

### 13. Disposal considerations

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|                  |                                                                              |
|------------------|------------------------------------------------------------------------------|
| Disposal methods | Dispose of in accordance with federal, state, and local regulations.         |
| RCRA status      | Discarded product, as sold, would not be considered a RCRA Hazardous Waste . |

### 14. Transport information

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|                            |                                                                                                                                                                         |
|----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| UN number                  | ADR/RID:    IMDG:    IATA:                                                                                                                                              |
| UN proper shipping name    | ADR/RID:Ethers, n.o.s. (Diethyleneglycol dimethylether)<br>IMDG:Ethers, n.o.s. (Diethyleneglycol dimethylether)<br>IATA:Ethers, n.o.s. (Diethyleneglycol dimethylether) |
| 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                   | Tunnel restriction code : (C/E)                                      |
| Further information                            | Not classified as dangerous in the meaning of transport regulations. |
| Transport in bulk according to IMO instruments | No data available                                                    |

## 15. Regulatory information

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|                                  |                                                                                                                                                                                                                 |
|----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| OSHA Hazard Communication Status | Respiratory Sensitization, Category 1B Serious Eye Damage, Category 1                                                                                                                                           |
| EPA Registration Number          | Not applicable                                                                                                                                                                                                  |
| TSCA                             | The ingredients of this product are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory.                                                                                            |
| 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       | A Chemical Safety Assessment has been carried out for this substance.                                                                                                                                           |

## 16. Other information

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|                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
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