

## 1. Product and Company Identification

www.rxmarine.com

Product Name MIKROBAC FORTE  
Part Number RXSOL-19-3356-062

### 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 [mail@rxmarine.com](mailto:mail@rxmarine.com)  
Website [www.rxmraine.com](http://www.rxmraine.com)

## 2. Composition / Information on ingredients

www.rxmarine.com

Chemical Name	CAS	EC numbe	Weight
Benzyl- C12-18-alkyldimethylammonium chlorides	68391-01-5	--	>= 10 - < 20
N-(3-aminopropyl)-N- dodecylpropane-1,3-diamine	2372-82-9	--	>= 1 - < 10
Tridecanol, branched, ethoxylated	69011-36-5	--	>= 1 - < 10
Alcohols, C12-14. ethoxylated	68439-50-9	--	>= 1 - < 10

## 3. Hazards Identification

www.rxmarine.com

Signal Word	Danger
Hazard Statements	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H410 Very toxic to aquatic life with long lasting effects
Precautionary statements	Prevention:P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. Response: P301 + P330 + P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.
Classification of the substance or mixture	Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.
Supplemental Hazard Statements	None.
Other hazards	None known.

## 4. First Aid Measures

www.rxmarine.com

General advice	Call a physician immediately.
If inhaled	If breathed in, move person into fresh air.
Eye Contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult

Swallowed	a physician. Rinse mouth. Give small amounts of water to drink. Do NOT induce vomiting. Obtain medical attention.
Skin Contact	Take off contaminated clothing and shoes immediately. Wash off immediately with plenty of water. Cover wound with sterile dressing. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty.
Inhalation	Remove patient to fresh air, keep warm and at rest and get medical assistance in necessary.
Ingestion	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.
Most important symptoms and effects, both acute and delaye	None known.
Indication of any immediate medical attention and special treatment needed	No data available

## 5. Fire-fighting Measures

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

Flammability	May be combustible at high temperature.
Special protective equipment for firefighters	Use personal protective equipment. In the event of fire, wear self-contained breathing apparatus.
Suitable extinguishing media	Water spray jet Dry powder Carbon dioxide (CO2)Foam
Unsuitable extinguishing media	Do NOT use water jet.
Special hazards arising from the substance or mixture	Carbon oxides
Further information	Use water spray to cool unopened containers.
Hazardous combustion products	No hazardous combustion products are known
Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Standard procedure for chemical fires.

## 6. Accidental Release Measures

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

Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Ensure adequate ventilation.
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.
Environmental Precaution	Should not be released into the environment.
Methods and materials for containment and cleaning	Clean-up methods - large spillage Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Clean-up methods - small spillage Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

## 7. Handling and Storage

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

Advice on safe handling	Prepare the working solution as given on the label(s) and/or the user instructions.
Advice on protection against fire and explosion	Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
Incompatible materials	Keep away from alkalis, strong oxidizing agents and metals. Provide containment walls of adequate capacity to hold any accidental spills.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. For precautions see

Precautions for safe handling	section 2.2.
Storage conditions	For precautions see section 2.2. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store in cool place. Store under inert gas. Moisture sensitive.
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
Conditions for safe storage	Store at room temperature in the original container.
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

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

Exposure controls	Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Control parameters	Ingredients with workplace control parameters Contains no substances with occupational exposure limit values.
Engineering Control	Change contaminated clothing. Wash hands after working with substance.
Eye/face protection	Safety glasses with side-shields conforming to EN166
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with the skin and the eyes. Ensure adequate ventilation, especially in confined areas.
Skin and body protection	Work uniform or laboratory coat. Remove and wash contaminated clothing before re-use. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.



Gloves Suit

## 9. Physical and chemical properties

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

Physical state	Liquid
Colour	Light yellow
Odour	Sweet
Odor Threshold	Not Applicable

pH	8 - 9 (20 °C)
Melting Point	Not Applicable
Boiling Point	> 95 °C
Flash Point	Not Applicable
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper flammability or explosive limits	Not Applicable
Autoignition temperature	Not Applicable
Decomposition temperature	No data available
Viscosity, dynamic	60 mPa.s ( 23 °C)
Density	1,01 g/cm <sup>3</sup> (20 °C)
Relative Vapour Density	No data available
Freezing point	No data available
Specific Gravity	No data available
Partition coefficient	Not Applicable
Explosive properties	No data available
Solubility	Not Applicable
Ignition temperature	No information available.
Particle characteristics	No data available

## 10. Stability and reactivity

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

Reactivity	No decomposition if stored and applied as directed.
Stability	The product is chemically stable
Possibility of hazardous reactions	No data available
Conditions to avoid	Heat Strong sunlight for prolonged periods.
Incompatible materials	aldehydes Anionic surfactants
Hazardous decomposition products	In the event of fire: see section 5

## 11. Toxicological information

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

Acute toxicity	Acute toxicity estimate: 1.299 mg/kg Method: Calculation method Acute toxicity estimate: 1.268 mg/kg Method: Calculation method
Acute inhalation toxicity	Acute toxicity estimate: > 10 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	Acute toxicity estimate: > 5.000 mg/kg Method: Calculation method
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: Does not cause skin sensitization. (OECD Test Guideline 406)
Toxic Effects on Human	May cause damage to the following organs: upper respiratory tract. Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant, sensitizer), of ingestion, of inhalation (lung irritant, lung sensitizer).
Carcinogenicity	No data available
Germ cell mutagenicity	Test Type: Ames test Test system: S. typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative Test Type: In vivo micronucleus test Species: Mouse Application Route: Oral Method: OECD Test Guideline 474 Result: negative
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Special Remarks on other Toxic 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.

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.

Endocrine disrupting properties

## 12. Ecological information

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

Toxicity

No data available

Persistence and degradability

Remarks: The surfactant(s) contained in this preparation complies (comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Toxicity to fish

LC50 (Leuciscus idus (Golden orfe)): 2,5 mg/l Method: OECD Test Guideline 203. LC50 (Pimephales promelas (fathead minnow)): 0,28 mg/l Exposure time: 96 h Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0,016 mg/l Exposure time: 48 h Method: OECD Test Guideline 202

Toxicity to algae

EC50 (Pseudokirchneriella subcapitata (microalgae)): 0,049 mg/l Exposure time: 72 h Test Type: Cell multiplication inhibition test Method: OECD Test Guideline 201

Products Biodegradation

The methods for determining the biological degradability are not applicable to inorganic substances.

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

Harmful to aquatic life.

## 13. Disposal considerations

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

Disposal methods

Dispose of as hazardous waste in compliance with local and national regulations. The product should not be allowed to enter drains, water courses or the soil. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Contaminated packaging

Empty remaining contents. Clean container with water. Offer rinsed packaging material to local recycling facilities.

Waste treatment Method

Offer surplus and non-recyclable solutions to a licensed disposal company. Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself.

## 14. Transport information

www.rxmarine.com

UN number	ADR/RID: 1903 IMDG: 1903 IATA: 1903
UN proper shipping name	ADR/RID: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)  IMDG: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)  IATA: DISINFECTANT, LIQUID, CORROSIVE, N.O.S. (quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides, N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine)
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA: 8
Packaging group	ADR/RID: II IMDG: II IATA: II
Environmental hazards	ADR/RID: YES IMDG Marine pollutant: YES IATA: YES
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

www.rxmarine.com

Inventory status	Components are on the following inventories: Polymaleic acid: - US TSCA, Canadian DSL, EU EINECS, Australian AICS, Korean, Philippine PICCS and Chinese Xi irritant R 36/38 Irritant to eyes & skin R 41 Risk of serious damage to eyes S24/25 Avoid contact with skin and eyes S26/28 In case of contact eyes & skin, rinse with plenty water and seek medical advice Section 312/313: Not listed. Not listed under California proposition 65.
Safety, health and environmental regulations/legislation specific for the substance or mixture	This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006.
Safety, health and environmental regulations specific for the product in question	European Inventory of Existing Commercial Chemical Substances (EINECS) -Listed. EC Inventory Listed. United States Toxic Substances Control Act (TSCA) Inventory- Listed. China Catalog of Hazardous chemicals 2015 Not- Listed. New Zealand Inventory of Chemicals (NZIoC) Listed. PICCS -Listed. Vietnam National Chemical Inventory -Listed. IECSC Listed. Korea Existing Chemicals List (KECL) -Listed.
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. : FLAMMABLE LIQUIDS
Other regulations	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

www.rxmarine.com

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 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.
-------------------	--

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.