

# Material Safety Data Sheet

ETHYL ACETO ACETATE (RXSOL-19-1169-210)



## 1. Product and Company Identification

Product Name ETHYL ACETO ACETATE

Part Number RXSOL-19-1169-210

### Company Details:

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

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

## 2. Composition / information on ingredients

| Chemical Name     | CAS      | EC number | Weight  | Formula        |
|-------------------|----------|-----------|---------|----------------|
| Acetoacetic ester | 141-97-9 | 205-516-1 | = 100 % | $C_6H_{10}O_3$ |

## 3. Hazards Identification

Signal Word None

Hazard Statements H300 + H310 + H330 Fatal if swallowed, in contact with skin or if inhaled. H314 Causes severe skin burns and eye damage. H400 Very toxic to aquatic life.

Precautionary statements P260 Do not breathe dust. P273 Avoid release to the environment. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. P304 + P340 + P310 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/ doctor. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Classification of the substance or mixture Not a hazardous substance or mixture according to Regulation (EC) No 1272/2008.

Supplemental Hazard Statements EUH032 Contact with acids liberates very toxic gas.

Other hazards This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 4. First Aid Measures

General advice None

If inhaled After inhalation: fresh air.

Eye Contact After eye contact: rinse out with plenty of water. Remove contact lenses.

Swallowed After swallowing: make victim drink water (two glasses at most). Consult doctor if feeling unwell.

Skin Contact In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.

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                 | 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

|                                                       |                                                                                                                                                                                                                               |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flammability                                          | Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.                                                                                                                                                      |
| Suitable extinguishing media                          | Water Foam Carbon dioxide (CO2) Dry powder                                                                                                                                                                                    |
| Unsuitable extinguishing media                        | For this substance/mixture no limitations of extinguishing agents are given.                                                                                                                                                  |
| Special hazards arising from the substance or mixture | Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. 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                         | Fire may cause the evolution of Sulphur oxides, nitrogen oxides.                                                                                                                                                              |
| Advice for firefighters                               | In the event of fire, wear self-contained breathing apparatus.                                                                                                                                                                |
| Protective Equipment                                  | Use personal protective equipment.                                                                                                                                                                                            |
| Specific Hazards Arising from the Chemical            | Oxides of phosphorus Sodium oxides Not combustible. Fire may cause evolution of: Oxides of phosphorus Ambient fire may liberate hazardous vapours.                                                                            |

## 6. Accidental Release Measures

|                                                                     |                                                                                                                                                                                                                                                                                                                                         |
|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | Advice for non-emergency personnel: Do not breathe vapors, aerosols. 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. |
| Environmental Precaution                                            | Do not let product enter drains.                                                                                                                                                                                                                                                                                                        |
| Methods and materials for containment and cleaning                  | Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up with liquid-absorbent and neutralising material (e.g. Chemizorb® H ?, Merck Art. No. 101595). Dispose of properly. Clean up affected area.                                                                    |

## 7. Handling and Storage

|                                                 |                                                                                                                                           |
|-------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|
| 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                                | Change contaminated clothing. Wash hands after working with substance. For precautions see section 2.2.                                   |
| Precautions for safe handling                   | For precautions see section 2.2.                                                                                                          |
| Storage conditions                              | Tightly closed.                                                                                                                           |
| Storage class                                   | Storage class (TRGS 510): 10: Combustible 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

|                   |                                                                                                                                                             |
|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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               | Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Eye/face protection               | Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Body Protection                   | Protective clothing                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Skin protection                   | <p>This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a>). Full contact Material: butyl-rubber Minimum layer thickness: 0,7 mm Break through time: 480 min Material tested:Butoject® (KCL 898)</p> <p>This recommendation applies only to the product stated in the safety data sheet, supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: <a href="http://www.kcl.de">www.kcl.de</a>). Splash contact Material: Viton® Minimum layer thickness: 0,7 mm Break through time: 30 min Material tested:Vitoject® (KCL 890 / Aldrich Z677698, Size M)</p> |
| Respiratory protection            | Not required; except in case of aerosol formation.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Other Protection Measure          | Handle in accordance with good industrial hygiene and safety practice.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| Control of environmental exposure | Do not let product enter drains.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

## 9. Physical and chemical properties

|                                              |                                         |
|----------------------------------------------|-----------------------------------------|
| Physical state                               | Liquid                                  |
| Colour                                       | Colorless                               |
| Odour                                        | Characteristic, ester-like              |
| Odor Threshold                               | No data available                       |
| pH                                           | 4,0 at 110 g/l at 20 °C                 |
| Melting Point                                | 43 °C - lit.                            |
| Boiling Point                                | 181 °C - lit.                           |
| Flash Point                                  | 73,5 °C                                 |
| Evaporation Rate                             | Not Applicable                          |
| Flammability (solid, gas)                    | No data available                       |
| Explosive limits                             | No Data Available                       |
| Upper/lower flammability or explosive limits | 9,5 %(V) 54 %(V) / 1,4 %(V)1,0 %(V)     |
| Autoignition temperature                     | No data available                       |
| Decomposition temperature                    | No data available                       |
| Vapour pressure                              | 0,26 hPa at 20 °C                       |
| Density                                      | 1,029 g/cm <sup>3</sup> at 20 °C - lit. |
| Relative Density                             | 1,03 at 20 °C                           |
| Vapour Density                               | 4,49 - (Air = 1.0)                      |
| Relative vapor density                       | 4,49 - (Air = 1.0)                      |
| Freezing point                               | No data available                       |
| Viscosity dynamic                            | 1,696 mPa.s at 20 °C                    |
| Partition coefficient                        | log Pow: 0,8 at 20 °C                   |
| Explosive properties                         | No data available                       |
| Solubility                                   | 130,3 g/l at 20 °C                      |
| Ignition temperature                         | No information available.               |
| Particle characteristics                     | No data available                       |

## 10. Stability and reactivity

|                                    |                                                                                                                                        |
|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Reactivity                         | Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical. |
| Stability                          | The product is chemically stable under standard ambient conditions (room temperature) .                                                |
| Possibility of hazardous reactions | Violent reactions possible with: Strong oxidizing agents Strong acids Strong bases                                                     |
| Conditions to avoid                | Strong heating.                                                                                                                        |
| Incompatible materials             | No data available                                                                                                                      |
| Hazardous decomposition products   | In the event of fire: see section 5                                                                                                    |

## 11. Toxicological information

|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute toxicity                                   | LD50 Oral - Rat - female - 10.800 mg/kg (OECD Test Guideline 401) LC50 Inhalation - Rabbit - male and female - 4 h - > 49,2 mg/l - vapor Remarks: (in analogy to similar products) (ECHA) The value is given in analogy to the following substances: methyl acetate Symptoms: Possible damages:, mucosal irritations LD50 Dermal - Rat - male and female - > 2.000 mg/kg (OECD Test Guideline 402)                                                                                                                                                                                                                                                                                                                                                                      |
| 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 - 24 h (OECD Test Guideline 405)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Respiratory or skin sensitization                | Freund's complete adjuvant test - Guinea pig Result: negative (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: In vitro mammalian cell gene mutation test Test system: Chinese hamster lung cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative                                                                                                                                                                                                                                                                                                                                                                       |
| Reproductive toxicity                            | No data available                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 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. Repeated dose toxicity - Rat - male and female - Oral - 28 d - NOAEL (No observed adverse effect level) - 1.000 mg/kg Remarks: Subacute toxicity No significant adverse effects were reported RTECS: AK5250000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. After absorption: Headache Dizziness Nausea Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice. |

## 12. Ecological information

|                                                     |                                                                                                                                                                                                                  |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bioaccumulative potential                           | No data available                                                                                                                                                                                                |
| Persistence and degradability                       | Biodegradability aerobic Chemical oxygen demand - Exposure time 28 d Result: 66 % - Readily biodegradable. (OECD Test Guideline 301D)                                                                            |
| Toxicity to fish                                    | Semi-static test LC50 - Danio rerio (zebra fish) - > 100 mg/l - 96 h (OECD Test Guideline 203)                                                                                                                   |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia magna (Water flea) - > 100 mg/l - 48 h (OECD Test Guideline 202)                                                                                                                      |
| Toxicity to algae                                   | Static test ErC50 - Desmodesmus subspicatus (green algae) - > 100 mg/l - 72 h (OECD Test Guideline 201)                                                                                                          |
| Toxicity to bacteria                                | Static test EC50 - activated sludge - 563 mg/l - 3 h (OECD Test Guideline 209) Remarks: (in analogy to similar products) The value is given in analogy to the following substances: sodium hypochlorite solution |
| 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              | Discharge into the environment must be avoided.                                                                                                                                                                                                             |

### 13. Disposal considerations

|                        |                                                                                                                                                                                                                                                          |
|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Disposal methods       | The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems. |
| Contaminated packaging | Dispose of as unused product.                                                                                                                                                                                                                            |
| Waste treatment Method | See <a href="http://www.retrologistik.com">www.retrologistik.com</a> for processes regarding the return of chemicals and containers, or contact us there if you have further questions.                                                                  |

### 14. Transport information

|                            |                   |          |          |
|----------------------------|-------------------|----------|----------|
| UN number                  | ADR/RID:          | IMDG:    | IATA:    |
| UN proper shipping name    | ADR/RID:          | IMDG:    | IATA:    |
| Transport hazard class(es) | ADR/RID:          | IMDG:    | IATA:    |
| Packaging group            | ADR/RID:          | IMDG:    | IATA:    |
| Environmental hazards      | ADR/RID: NO       | IMDG: NO | IATA: NO |
| Further information        | No data available |          |          |

### 15. Regulatory information

|                                                                                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 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.                                                                                                                                                                                                                                                                                                                                                |
| National legislation                                                                           | Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. : ACUTE TOXIC : ENVIRONMENTAL HAZARDS                                                                                                                                                                                                                                                   |
| Other regulations                                                                              | Observe work restrictions regarding maternity protection in accordance to Dir 92/85/EEC or stricter national regulations where applicable. Take note of Dir 94/33/EC on the protection of young people at work.                                                                                                                                                                                                                                 |
| Chemical Safety Assessment                                                                     | For this product a chemical safety assessment was not carried out                                                                                                                                                                                                                                                                                                                                                                               |

### 16. Other information

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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><b>DISCLAIMER OF LIABILITY :</b> 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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