

1. Product and Company Identification

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Product Name LEVULINIC ACID
Part Number RXSOL-60-6604-823

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

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Email mail@rxmarine.com
Website www.rxmarine.com

2. Composition / Information on ingredients

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| Chemical Name | CAS | EC number | Weight | Formula |
|-----------------------------------|--|-----------|---------------------------------------|---------|
| Levulinic acid | 123-76-2 | 204-649-2 | 2.000 mg/kg (OECD Test Guideline 402) | |
| Skin corrosion/irritation | Skin - In vitro study Result: negative (OECD Test Guideline 439) | | | |
| Serious eye damage/eye irritation | Eyes - Bovine cornea Result: Causes serious eye damage. (OECD Test Guideline 437) | | | |
| Respiratory or skin sensitization | Local lymph node assay (LLNA) - Mouse Result: positive (OECD Test Guideline 442B) | | | |
| 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: Chromosome aberration test in vitro Test system: Human lymphocytes Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative 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: | | | |

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| | negative |
| Reproductive toxicity | No data available |
| Specific target organ toxicity - single exposure | No data available |
| Endocrine properties | disrupting 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: OI1575000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. |

12. Ecological information

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| Bioaccumulative potential | No data available |
| Persistence and degradability | Biodegradability aerobic - Exposure time 28 d Result: > 60 % - Readily biodegradable. (OECD Test Guideline 301F) |
| Toxicity to fish | No data available |
| Toxicity to daphnia and other aquatic invertebrates | Static test EC50 - Daphnia - 108,82 mg/l - 48 h Remarks: (ECHA) |
| Toxicity to algae | IC50 - Desmodesmus subspicatus (green algae) - 46,7 mg/l - 72 h Remarks: (IUCLID) (butyric acid) |
| Toxicity to bacteria | EC50 - activated sludge - > 261 mg/l - 30 min Remarks: (ECHA) |
| 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 | 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 www.retrologistik.com for processes regarding the return of chemicals and containers, or contact us there if you have further questions. |

14. Transport information

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| 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

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