

## 1. Product and Company Identification

www.rxmarine.com

Product Name N ACETYL Y BUTYROLACTONE FOR SYNTHESIS  
Part Number RXSOL-60-6605-039

### 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 2087 1500:::AOH :0091 9821214367  
Email [mail@rxmarine.com](mailto:mail@rxmarine.com)  
Website [www.rxmarine.com](http://www.rxmarine.com)

## 2. Composition / Information on ingredients

www.rxmarine.com

Chemical Name	CAS-No	EC NO.	Weight %
N ACETYL BUTYROLACTONE SYNTHESIS	Y 517-23-7 FOR	208-235-2	100 %

## 3. Hazards Identification

www.rxmarine.com

Signal Word	Warning
Hazard Statements	H315 Causes skin irritation.  H319 Causes serious eye irritation.  H335 May cause respiratory irritation
Classification of the substance or mixture	Classification according to Regulation (EC) No 1272/2008  Skin irritation (Category 2), H315  Eye irritation (Category 2), H319  Specific target organ toxicity - single exposure (Category 3), Respiratory system, H335  For the full text of the H-Statements mentioned in this Section, see Section 16.
Label elements	Labelling according Regulation (EC) No 1272/2008
Precautionary statement(s)	P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.  P264 Wash skin thoroughly after handling.  P271 Use only outdoors or in a well-ventilated area.  P280 Wear protective gloves/ eye protection/ face protection.  P302 + P352 IF ON SKIN: Wash with plenty of water.  P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes.

Other hazards	Remove contact lenses, if present and easy to do. Continuing. 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

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

General advice	Show this material safety data sheet to the doctor in attendance
If inhaled	After inhalation: fresh air.
Eye Contact	After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower.
Inhalation	Remove from exposure, lie down. Remove to fresh air.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. If possible drink milk afterwards
Notes to Physician	Treat symptomatically
If swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.
Most important symptoms and effects, both acute and delay	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

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

Suitable Extinguishing Media	For this substance/mixture no limitations of extinguishing agents are given.
Flammability	May be combustible at high temperature.
Flash Point	No information available.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide
Unsuitable extinguishing media	For this substance/mixture no limitations of extinguishing agents are given
Special hazards arising from the substance or mixture	Carbon oxides  Vapors are heavier than air and may spread along floors.  Forms explosive mixtures with air on intense heating
Further information	Prevent fire extinguishing water from contaminating surface water or the ground water system.
Hazardous combustion products	Thermal decomposition can lead to release of irritating gases and vapors. Carbon monoxide (CO). Carbon dioxide (CO <sub>2</sub> ).

Advice for firefighters	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by
Protective Equipment	keeping a safe distance or by wearing suitable protective clothing. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full
Specific Hazards Arising from the Chemical	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors. Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

## 6. Accidental Release Measures

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

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance  contact. Ensure adequate ventilation. 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	Advice for non-emergency personnel: Avoid inhalation of dusts. Evacuate the danger area, observe emergency procedures, consult an expert. Advice for emergency responders: Protective equipment see section 8.
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  Take up with liquid-absorbent material (e.g. Chemizorb® ).  Dispose of properly. Clean up affected area. For disposal see section 13.
Reference to other sections	

## 7. Handling and Storage

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

Advice on safe handling	Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. For precautions see section 2.2.
Advice on protection against fire and explosion	Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge
Hygiene measures	Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions
Precautions for safe handling	For precautions see section 2.2.
Conditions for safe storage, including any incompatibilities	Store in cool place. Keep container tightly closed in opened must be carefully resealed and kept upright to Storage class (TRGS 510): Flammable liquids.
Storage conditions	Tightly closed.
Storage conditions	Keep in a dry, cool and well-ventilated place. Refer product specification

	and/or product label for specific storage temperature requirement. Keep container 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
Handling	Avoid contact with skin and eyes. Avoid contact with skin and clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Avoid breathing vapors or mists. Do not ingest. If swallowed then seek immediate medical assistance. Wash thoroughly after handling
Advice on general occupational hygiene	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

## 8. Exposure controls and personal protection

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

Occupational Exposure limit values	This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
Biological limit values	No data available
Exposure controls	Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk elimination area
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	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Body Protection	Wear appropriate protective gloves and clothing to prevent skin exposure type of protective equipment must be selected according to the concentration
Skin protection	Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices Wash and dry hands contaminated gloves after use in accordance with applicable laws and good laboratory
Respiratory protection	No protective equipment is needed under normal use conditions.
Other Protection Measure	None under normal use conditions
Control of environmental exposure	Prevent further leakage or spillage if safe to do so. Do not let product enter drains
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.
Thermal hazards	No data available

## 9. Physical and chemical properties

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

Physical state	Liquid
Appearance	Colorless
Colour	Colourless
Odour	Odorless
Odor Threshold	No data available
pH	No information available
Melting Point	NA
Initial boiling point and boiling range	107 - 108 °C at 7 hPa - lit.
Boiling Point	No data available
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available

Explosive limits	No Data Available
Upper/lower flammability or explosive limits	No data available
Autoignition temperature	No data available
Decomposition temperature	No data available
Vapour pressure	No Data Available
Density	1,19 g/cm <sup>3</sup> at 25 °C - lit.
Vapour Density	No Data Available
Specific Gravity	No data available
Upper/lower flammability or explosive limits	No data available
Flash point	113 °C - closed cup
Vapour density	NA
Vapour pressure	NA
Partition coefficient	No data available
Auto-ignition emperature	300 °C
Explosive properties	None
Solubility	DMSO (Slightly), Water (Slightly)
Ignition temperature	No information available.
Molecular Weight	NA
Molecular Formula	NA
Particle characteristics	No data available

## 10. Stability and reactivity

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

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	No data available
Conditions to avoid	Strong heating
Incompatible materials	Strong oxidizing agents, Strong bases
Hazardous Polymerization	Hazardous decomposition products formed under fire conditions - Carbon oxides In the event of fire: see section 5

## 11. Toxicological information

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

Acute toxicity	Oral No data available
	Inhalation No data available
	Dermal No data available
Skin corrosion/irritation	Skin - Rabbit(Pentan-1-ol)Result: Skin irritation - 24 h
Serious eye damage/eye irritation	No data available
Carcinogenicity	The table below indicates whether each agency has listed any ingredient as a carcinogen.
Respiratory or skin sensitization	No data available
Serious eye damage/eye irritation	No data available
Rout Of Entry	Inhalation. Ingestion.
Toxicity to Animal	No data available
Toxic Effects on Human	No data available
Germ cell mutagenicity	Ames test(Pentan-1-ol) Salmonella typhimurium 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.
Additional Information	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.  To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Assessment	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: OD2800000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.
Endocrine disrupting properties	No information available

## 12. Ecological information

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

Persistence and degradability	NA
Toxicity	NA
Bioaccumulative potential	No information available
Toxicity to fish	NA
Toxicity to daphnia and other aquatic invertebrates	NA
Toxicity to algae	static test ErC50 - SELENASTRUM - > 998 mg/l - 72 h (OECD Test Guideline 201)
Eco Toxicity	Not Available
COD and BOD 5	Not Available
Products Biodegradation	NA
Mobility in soil	NA
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
Assessment	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

Other adverse effects

Regulation (EU) 2018/605 at levels of 0.1% or higher.

No data available

### 13. Disposal considerations

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

Waste Disposal Methods

NA

### 14. Transport information

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

DOT

Not regulated

TDG

Not regulated

IATA

Not regulated

MDG/IMO

Not regulated

### 15. Regulatory information

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

SARA 313

Not applicable

SARA 311/312 Hazard Categories

See section 2 for more information

CWA (Clean Water Act)

Not applicable

Clean Air Act

Not applicable

OSHA - Occupational Safety and Health Administration

Not applicable

CERCLA

Not applicable

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Not applicable

Reportable Quantity (RQ):

Not applicable

DOT Marine Pollutant

Not applicable

DOT Severe Marine Pollutant

Not applicable

U.S. Department of Homeland Security

This product does not contain any DHS chemicals

Mexico - Grade

No information available

### 16. Other information

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