Material Safety Data Sheet

N BUTYL METHACRYLATE 99% for Synthesis Stabilized (RXSOL-60-6605-052)

1. Product and Company Identifaction

Product Name	N BUTYL METHACRYLATE 99% for Synthesis Stabilized
Part Number	RXSOL-60-6605-052

Company Details:

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

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2. Composition / informationon ingredients

Chemical name	CAS-No .	Formula	Molecular weight	EC-No.
N BUTYL METHACRYLATE	97-88-1	C8H14O2	142,20 g/mol	202-615-1

N-chlorosuccinimide

Component	Classification	Concentration.
CAS-No.97-88-1 EC-No.202-615-1 Index-No 607-033-00-5	Flam. Liq. 3; Skin Irrit. 2; Eye Irrit. 2; Skin Sens. 1; STOT SE 3; H226, H315, H319, H317, H335	= 100 %

3. Hazards Identification

Classification of the substance or mixture

Classification according to Regulation	Flammable liquids (Category 3), H226 Skin irritation (Category 2), H315 Eye irritation (Category 2), H319 Skin sensitization (Category 1), H317 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
Signal Word	warning
Hazard Statements	H317 May cause an allergic skin reaction
P280 Wear protective gloves.P305 + P351 + P338	Wear eye protection/ face protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Precautionary statements - response	none
Supplemental Hazard Statements	none
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

Description of first-aid measures

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.
swallowed	After swallowing: immediately make victim drink water (two glasses at most). Consult a lenses
Skin Contact	In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician
Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention immediately if symptoms occur.
Ingestion:	Do not induce vomiting. Obtain medical attention.If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain an open airway and prevent aspiration.
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 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

Extinguishing media

Flammability	May be combustible at high temperature.
Flash Point	CLOSED CUP: Higher than 93.3°C (200°F).
Suitable extinguishing media	Carbon dioxide (CO2) Foam 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 at elevated temperatures Development of hazardous combustion gases or vapours possible in the event of fire
Further information	Suppress (knock down) gases/vapors/mists with a water spray jet. 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	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing
Protective Equipment	Use personal protective equipment.
Specific Hazards Arising from the Chemical	Has a fire-promoting effect due to the release of oxygen. Ambient fire may liberate hazardous vapours.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. 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.
Enviromental Precaution	Do not let product enter drains. Risk of explosion
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 material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.
Reference to other sections	For disposal see section 13.

7. Handling and Storage

Advice on safe handling	Work under hood. Do not inhale substance/mixture.
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 see section 2.2.
Precautions for safe handling	For precautions see section 2.2.
Storage conditions	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.
Storage conditions	Tightly closed. Dry
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
Handling	Keep away from heat. Keep away from sources of ignition. Keep away from combustible material.. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as reducing agents, combustible materials, organic materials, metals
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

Control parameters	Ingredients with workplace control parameters
	Personal Protection
Eye/face protection	Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles
Body Protection	Flame retardant antistatic protective clothing
Skin protection	required
Respiratory protection	Recommended Filter type: Filter A-(P2) The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer These measures have to be properly documented
Other Protection Measure	Handle in accordance with good industrial hygiene and safety practice.
Control of environmental exposure	Do not let product enter drains.



Gloves



Suit

9. Physical and chemical properties

Physical state	liquid
Colour	No data available
Odour	No data available
Odor Threshold	Not Applicable
pH	No data available
Melting Point	Melting point/range: -75 °C
Boiling Point	162 - 165 °C - lit.
Flash Point	48,5 °C - closed cup - Regulation (EC) No. 440/2008, Annex A.9
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No data available
Explosive limits	No Data Available
Upper/lower flammability or explosive limits	Upper explosion limit: 8 %(V) Lower explosion limit: 2 %(V)
Autoignition temperature	No data available
Decomposition temperature	No data available
Density	0,894 g/cm3 at 25 °C - lit.
Vapour Density	3 hPa at 20 °C
Partition coefficient	log Pow: 3,01
Explosive properties	None
Water Solubility	429 g/l at 20 °C - OECD Test Guideline 105
Ignition temperature	No information available.
Surface tension	70,7 mN/m at 20 °C
Other safety information	No data available

10. Stability and reactivity

Reactivity	Vapor/air-mixtures are explosive at intense warming
Stability	The product is chemically stable under standard ambient conditions (room temperature)
Possibility of hazardous reactions	Risk of explosion with: Water Alcohols Amines Ammonia anilines Hydrazine hydrate iron/iron-containing compounds
Conditions to avoid	no information available
Incompatible materials	no information available
Hazardous Polymerization	In the event of fire: see section 5

11. Toxicological information

Information on toxicological effects

Acute toxicity	LD50 Oral - Rat - 16.000 mg/kg Inhalation: No data available
Skin corrosion/irritation	Remarks: No data available
Serious eye damage/eye irritation	Remarks: Causes serious eye damage. The GHS classification specified by the authority (ECHA)
Respiratory or skin sensitization	Maximization Test - Guinea pig Result: May cause sensitization by skin contact (OECD Test Guideline 406)
Serious eye damage/eye irritation	Remarks: Mixture causes serious eye damage.
Rout Of Entry	Inhalation. Ingestion.

Toxicity to Animal	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE Acute oral toxicity (LD50): 689 mg/kg [Rat].
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).
Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation
Special Remarks on other Toxi Effects on Humans:	Acute Potential Health Effects: Skin: Causes skin irritation. May cause skin sensitization, an allergic reation, 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	Endocrine disrupting properties
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
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: DK2625000 burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Damage to the eyes. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidenc

Skin corrosion/irritation	Skin - Rabbit Result: Skin irritation - 4 h (OECD Test Guideline 404)
Respiratory or skin sensitization	Buehler Test - Guinea pig Result: negative (US-EPA)
Germ cell mutagenicity	Test Type: Ames test Test system: Escherichia coli/Salmonella typhimurium Result: negative
Specific target organ toxicity - single exposure	No data available
Endocrine disrupting properties	The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. RTECS: SS7700000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated., Nausea, Dizziness, Headache, Dermatitis, Pulmonary edema. Effects may be delayed., Discoloration of the skin. After absorption: Risk of methaemoglobin formation with headache, cardiac dysrhythmia, drop in blood pressure, dyspnoea and spasms, principal symptom: cyanosis (blue discolouration of the blood).

12. Ecological information

Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 2 % - Not readily biodegradable. (OECD Test Guideline 301D)
Toxicity	Toxicity to daphnia and other aquatic invertebrates static test EC50 - Daphnia magna Straus (Water flea) - 0,26 mg/l - 24 h Remarks: (ECHA)
Toxicity to fish	LC50 - Oryzias latipes (Orange-red killifish) - 5,57 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 32 mg/l - 48 h
Toxicity to algae	EC50 - Pseudokirchneriella subcapitata (green algae) - 57 mg/l - 96 h
Eco Toxicity	Not Available
COD and BOD 5	Not Available
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.

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.
Other adverse effects	Biological effects: Disinfectant effect. Further information on ecology Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment	Method	No data available

14. Transport information

UN number	ADR/RID: 3261 IMDG: 3261 IATA: 3261
UN proper shipping name	ADR/RID: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (N-chlorosuccinimide) IMDG: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (N-chlorosuccinimide) IATA: CORROSIVE SOLID, ACIDIC, ORGANIC, N.O.S. (N-chlorosuccinimide)
Transport hazard class(es)	ADR/RID: 8 IMDG: 8 IATA: 8
Packaging group	ADR/RID: II IMDG: II ATA: II
Environmental hazards	ADR/RID: yes IMDG Marine pollutant: yes IATA: no
Special precautions for user	
Tunnel restriction code	(D/E)
Further information	Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

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 : ENVIRONMENTAL HAZARDS Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
DSCL (EEC)	R8- Contact with combustible material may cause fire. R20/22- Harmful by inhalation and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R42/43- May cause sensitization by inhalation and skin contact. S22- Do not breathe dust. S24- Avoid contact with skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37- Wear suitable gloves.
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

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 weassume 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 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.