Material Safety Data Sheet

PHTHALIC ANHYDRIDE (RXSOL-19-1612-025)

1. Product and Company Identifaction

Product Name	PHTHALIC ANHYDRIDE
Part Number	RXSOL-19-1612-025

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

Phone	+91 22 65113333 / 5555 / 9999
Fax	+91 22 2781 1318 :::AOH :0091 9821214367
Email	123@rxmarine.com
Website	www.rxmarine.com

2. Composition / informationon ingredients

Name of Substance	Cas Number	EC Number	Wight %
Phthalic Anhydride	85-44-9	201-607-5	99.8-100%
Maleic Anhydride	108-31-6	203-571-6	0.01 - 0.05%

3. Hazards Identification

SignalWord	Danger
Hazard Statements	H302 Harmful if swallowed. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation.
Precautionary statements - prevention	P280 Wear protective gloves. P280 Wear eye protection.
Precautionary statements - response	P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. P304 + P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

4. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.
Skin Contact	In case of contact, immediately flushes skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used.Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
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

5. Fire-fighting Measures

Flammability	May be combustible at high temperature.
Auto Ignition Temperature	570°C
Flash Point	Close Cup: 151.67°C.Open Cup: 165°C
Suitable extinguishing media	Water, Carbon dioxide (CO2), Foam, Dry powder
Hazardous combustion products	Forms explosive mixtures with air on intense heating. Risk of dust explosion. Development of hazardous combustion gases or vapours possible in the event of fire.
Fire Fighting Media and Instructions	Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.
Further Information	Cool closed containers exposed to fire with water spray. Prevent fire extinguishing water from contaminating surface water or the ground water system.

6. Accidental Release Measures

Spillage	Use appropriate tools to put the spilled solid in a convenient waste disposal container. Corrosive solid. Poisonous solid. Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapors. 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 substance contact. Avoid inhalation of dusts. Ensure adequate ventilation. 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.
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 dry. Dispose of properly. Clean up affected area. Avoid generation of dusts.

7. Handling and Storage

Handling	Keep locked up.. Keep container dry. Keep away from heat. Keep away from sources of ignition. 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. Never add water to this product. 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 oxidizing agents.
Storage	Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorised persons.
Advice general occupational	Advice on safe handling Observe label precautions. Change contaminated clothing. Wash hands after working with substance.

8. Exposure controls and personal protection

Engineering Control	Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended nexposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
Personal Protection	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. Skin and body protection: Wear appropriate protective gloves and clothing to prevent skin exposure. Respiratory Protection : Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator exposure limits are exceeded or if irritation or other symptoms are experienced.
Exposure Limit	TWA: 6.1 (mg/m3) from ACGIH (TLV) [United States] TWA: 6 from ACGIH (TLV) [United States]Consult local authorities for acceptable exposure limits.



Gloves



Suit

9. Physical and chemical properties

Form	Solid
Colour	White
Odour	Characteristic
Odor Threshold	Not Applicable
pH	2 at 6 g/l 20 °C
Melting Point	131 °C (decomposition)
Boiling Point	285°C
Flash Point	152 °C Method: DIN 51758
Evaporation Rate	Not Applicable
Flammability (solid, gas)	No Data Available
Lower Explosion limits	1.7 %(V)
Upper explosion limit	10.5 %(V)
Vapour pressure	0.01 hPa at 20 °C
Vapour Density	6.6
Specific Gravity	1.527 g/cm³ at 20 °C
Partition coefficient	n-octanol/water log Pow: 2.07 (25 °C) (calculated)
Explosive properties	Not classified as explosive.
Solubility	Soluble in water 6 g/l at 20 °C
Ignition temperature	580 °C Method: DIN 51794
Viscosity, dynamic	No information available

10. Stability and reactivity

Reactivity	Risk of dust explosion. Forms explosive mixtures with air on intense heating.
Stability	The product is chemically stable under standard ambient conditions (room temperature).
Possibility of hazardous reaction	Violent reactions possible with: Strong acids, Organic acids, strong reducing agents, Water, alkali hydroxides, Nitric acid, Alcohols, glycerol, metallic oxides, nitrites, Oxidizing agents, Air metals, (in the presence of atmospheric oxygen and/or moisture)
Conditions to avoid	Strong Heating

Incompatible materials	Rubber Various Plastic
Hazardous Polymerization	Hazardous polymerization does not occur.

11. Toxicological information

Rout Of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animal	WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE. Acute oral toxicity (LD50): 1500 mg/kg [Mouse]. Acute dermal toxicity (LD50): >10000 mg/kg [Rabbit]. Acute toxicity of the dust (LC50): >210 mg/m 1 hours [Rat].
Toxic Effects on Human	Very hazardous in case of skin contact (irritant), of ingestion, of inhalation. Hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).
Special Remarks on other Toxi Effects on Humans:	Acute Potential Health Effects: Corrosive! If the solid materials is permitted to remain in contact with moist tissues, superficial burns may result. Skin: May cause severe skin irritation witn possible skin burns. If the skin is moist the irritant effects will be greater due to hydrolysis of phthalic acid. Eyes: May cause severe eye irritation with possible eye burns. May cause chemical conjunctivitis and corneal damage. Inhalation: Causes severe respiratory tract irritation with possible chemical burns to the respiratory tract. May cause asthmatic attacks due to allergic sensitization of respiratory tract. May also affect respiration, and liver. Symptoms may include Rhinorrhea, blaody nasal disharge, hoarseness of voice, cough, bronchospasm Ingestion: Causes severe digestive tract irritation iwth possible burns. May cause severe and permanent damage to the digestive tract. Mah cause perforation of the digestive tract. May affect behavior. Chronic Potential Health Effects: Skin: Prolonged or repeated skin contact may cause allergic skin reaction.

12. Ecological information

Eco Toxicity	Not Available
COD and BOD 5	Not Available
Products Biodegradation:	99 %; 14 d OECD Test Guideline 301E Readily biodegradable.
Mobility in soil	No Information available
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	Additional ecological information Biological effects: Harmful effect due to pH shift. Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment Method	Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers. No mixing with other waste. Handle uncleaned containers like the product itself

14. Transport information

DOT

UN Number	UN 2214
Proper shipping name	PHTHALIC ANHYDRIDE
Hazard Class	8
Packing group	III
Special Provisions for Transport	Not Classified as Hazardous for Transport

TDG

UN Number	UN 2214
Proper shipping name	PHTHALIC ANHYDRIDE
Hazard Class	8
Packing group	III
Special Provisions for Transport	Not Classified as Hazardous for Transport

IATA

UN Number	UN 2214
Proper shipping name	PHTHALIC ANHYDRIDE
Hazard Class	8
Packing group	III
Special Provisions for Transport	Not available.

IMDG/IMO

UN Number	UN 2214
Proper shipping name	PHTHALIC ANHYDRIDE
Hazard Class	8
Packing group	III
Special Provisions for Transport	Not Classified as Hazardous for Transport

15. Regulatory information

Fedral and State Regulation	Connecticut hazardous material survey.: Phthalic anhydride Illinois toxic substances disclosure to employee act: Phthalic anhydride Illinois chemical safety act: Phthalic anhydride New York release reporting list: Phthalic anhydride Rhode Island RTK hazardous substances: Phthalic anhydride Pennsylvania RTK: Phthalic anhydride Minnesota: Phthalic anhydride Michigan critical material: Phthalic anhydride Massachusetts RTK: Phthalic anhydride
Other Regulation	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200). EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.
WHMIS (Canada)	CLASS D-2A: Material causing other toxic effects (VERY TOXIC). CLASS E: Corrosive solid.
DSCL (EEC)	R22- Harmful if swallowed. R26- Very toxic by inhalation. R38- Irritating to skin. R41- Risk of serious damage to eyes. S1/2- Keep locked up and out of the reach of children. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S28- After contact with skin, wash immediately with plenty of [***] S36/37- Wear suitable protective clothing and gloves. S39- Wear eye/face protection. S45- In case of accident or if you feel unwell,

HMIS

Health Hazard	: 3
Fire Hazard	: 1
Reactivity	: 1
Personal Protection	: E

Fire :

Health Hazard	: 3
Fire Hazard	: 1
Reactivity	: 0

Specific Hazard :

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.