Material Safety Data Sheet

Phenolphthalein pH Indicator 1% Solution (RXSOL-60-6030-001)

1. Product and Company Identifaction

Product Name	Phenolphthalein Indicator 1% Solution
Product Type	RXSOL-60-6030-001

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

Stock Point : Mumbai, Kandla, Kolkata, Chennai, Vizag, Fujairah, Muscat

Phone	+91 22 65113333/ 5555 / 9999 / 27611360 / 27815540
Fax	+91 22 2781 1318 :::AOH :0091 9322594669
Email	mail@rxmarine.com

2. Composition / informationon ingredients

Composition:

Name	CAS #	% by Weight
Distilled Water	7732-18-5	4
Isopropyl alcohol	67-63-0	95
Phenolphthalein Powder	77-09-8	1

Toxicological Data on Ingredients:
Isopropyl alcohol: ORAL (LD50): Acute: 5045 mg/kg [Rat]. 3600 mg/kg [Mouse]. 6410 mg/kg [Rabbit]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit]. Phenolphthalein, powder LD50: Not available. LC50: Not available.

3. Hazards Identification

Potential Acute Health Effects:
Hazardous in case of eye contact (irritant), of ingestion, Slightly hazardous in case of skin contact (irritant, sensitizer, permeator). Non-corrosive for skin. Non-corrosive to the eyes. Non-corrosive for lungs.

Potential Chronic Health Effects:
CARCINOGENIC EFFECTS:
Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Isopropyl alcohol]. Classified 1 (Clear evidence.) by NTP [Phenolphthalein, powder]. Classified 2B (Possiblefor human.) by IARC [Phenolphthalein, powder]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells.[Phenolphthalein, powder].
TERATOGENIC EFFECTS:Not available. DEVELOPMENTAL TOXICITY: Classified eproductive system/toxin/female, Development toxin [POSSIBLE] [Isopropyl alcohol]. The substance may be toxic to kidneys, liver, skin,central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.

4. First Aid Measures

Eye Contact:
Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention.

Skin Contact:
Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.

Serious Skin Contact:
Not available.

Inhalation:
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Serious Inhalation:
Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. Seek medical attention.

Ingestion:
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

Serious Ingestion:
Not available.

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5. Fire-fighting Measures

Auto-Ignition Temperature: The lowest known value is 399°C (750.2°F) (Isopropyl alcohol).

Flash Points: The lowest known value is CLOSED CUP: 11.7°C (53.1°F). (TAG). OPEN CUP: 23°C (73.4°F). (Cleveland). (Isopropyl alcohol)

Flammable Limits:The greatest known range is LOWER: 2% UPPER: 12.7% (Isopropyl alcohol)

Products of Combustion: These products are carbon oxides (CO, CO2).

Fire Hazards in Presence of Various Substances:
Highly flammable in presence of open flames and sparks, of heat. Flammable in presence of oxidizing materials. Nonflammable in presence of shocks, of reducing materials, of combustible materials, of organic materials, of metals, of acids, of alkalis, of moisture.

Explosion Hazards in Presence of Various Substances:
Slightly explosive in presence of oxidizing materials. Non-explosive in presence of open flames and sparks, of shocks.

Fire Fighting Media and Instructions: Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use alcohol foam, water spray or fog.

Special Remarks on Fire Hazards: Vapor may travel considerable distance to source of ignition and flash back. CAUTION: MAY BURN WITH NEAR INVISIBLE FLAME (Isopropyl alcohol)

Special Remarks on Explosion Hazards:
Secondary alcohols are readily autooxidized in contact with oxygen or air, forming ketones and hydrogen peroxide. It can become potentially explosive. Explosive in the form of vapor when exposed to heat or flame. May form explosive mixtures withair. Isopropyl alcohol + phosgene forms isopropyl chloroformate and hydrogen chloride. In the presence of iron salts, thermaldecompositon can occur, whicn in some cases can become explosive. A homogeneous mixture of oncentrated peroxides +isopropyl alcohol are capable of detonation by shock or heat. Barium perchlorate + isopropyl alcohol gives the highly explosive alkyl perchlorates.(Isopropyl alcohol)

6. Accidental Release Measures

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill:
Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities

7. Handling and Storage

Precautions:
Keep locked up.. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Avoid contact with eyes. 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. Keep away from incompatibles such as oxidizing agents, acids.

Storage:
Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).

8. Exposure controls and personal protection

Engineering Controls:
Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respectivethreshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection:
Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves (impervious).

Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits:
Isopropyl alcohol TWA: 983 STEL: 1230 (mg/m3) [Australia] TWA: 200 STEL: 400 (ppm) from ACGIH (TLV) [United States] [1999] TWA: 980 STEL: 1225 (mg/m3) from NIOSH TWA: 400 STEL: 500 (ppm) from NIOSH TWA: 400 STEL: 500 (ppm)[United Kingdom (UK)] TWA: 999 STEL: 1259 (mg/m3) [United Kingdom (UK)] TWA: 400 STEL: 500 (ppm) from OSHA (PEL) [United States] TWA: 980 STEL: 1225 (mg/m3) from OSHA (PEL) [United States]Consult local authorities for acceptable exposure limits.

9. Physical and chemical properties

Physical state and appearance	:Liquid.
Odor	:Alcohol like.
Taste	:Not available.
Molecular Weight	:Not applicable.
Color	:Clear Colorless.
pH (1% soln/water)	:8 [Basic.]
Boiling Point	:The lowest known value is 82.5°C (180.5°F) (Isopropyl alcohol). Weighted average: 83.21°C (181.8°F)
Melting Point	:May start to solidify at -88.5°C (-127.3°F) based on data for: Isopropyl alcohol.
Critical Temperature	:The lowest known value is 235°C (455°F) (Isopropyl alcohol).
Specific Gravity	:Weighted average: 0.8 (Water = 1)
Vapor Pressure	:The highest known value is 4.4 kPa (@ 20°C) (Isopropyl alcohol). Weighted average: 4.32 kPa (@ 20°C)
Vapor Density	:The highest known value is 2.07 (Air = 1) (Isopropyl alcohol). Weighted average: 2.01 (Air = 1)
Volatility	:Not available
Odor Threshold	:The highest known value is 22 ppm (Isopropyl alcohol)
Water/Oil Dist. Coeff	:The product is equally soluble in oil and water.
Ionicity (in Water)	:Not available.
Dispersion Properties	:See solubility in water, diethyl ether, acetone
Solubility	:Easily soluble in cold water, hot water, diethyl ether, acetone.

10. Stability and reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Heat, ignition sources (sparks, flames), incompatible materials

Incompatibility with various substances: Reactive with oxidizing agents, acids.

Corrosivity:
Non-corrosive in presence of glass.

Special Remarks on Reactivity: Reactcs violently with hydrogen-palladium combination. Incompatible with acetaldehyde, chlorine, ethylene oxide, isocyanates. (Isopropyl alcohol)

Special Remarks on Corrosivity: Not available.

Polymerization: Will not occur.

11. Toxicological information

Routes of Entry: Absorbed through skin. Eye contact. Inhalation. Ingestion.

Toxicity to Animals:
Acute oral toxicity (LD50): 3600 mg/kg [Mouse]. (Isopropyl alcohol). Acute dermal toxicity (LD50): 12800 mg/kg [Rabbit]. (Isopropyl alcohol).

Chronic Effects on Humans:
CARCINOGENIC EFFECTS: Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC [Isopropyl alcohol]. Classified 1 (Clear evidence.) by NTP [Phenolphthalein, powder]. Classified 2B (Possible for human.) by IARC [Phenolphthalein, powder]. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. [Phenolphthalein, powder]. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Development toxin [POSSIBLE] [Isopropyl alcohol]. Contains material which may cause damage to the following organs: kidneys, liver, skin,central nervous system (CNS).

Other Toxic Effects on Humans:
Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, sensitizer, permeator).

Special Remarks on Toxicity to Animals: Not available.

12. Ecological information

Ecotoxicity: Not available.

BOD5 and COD: Not available.

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The product itself and its products of degradation are not toxic.
Special Remarks on the Products of Biodegradation: Not available.

13. Disposal considerations

Waste Disposal:
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

DOT Classification: CLASS 3: Flammable liquid.

Identification Isopropanol, Solution (Isopropyl alcohol) UNNA: 1219 PG: II

Special Provisions for Transport:
Not available.

15. Regulatory information

Federal and State Regulations:
California prop 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Phenolphthalein, powder California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: henolphthalein, powder Rhode Island RTK hazardous substances: Isopropyl alcohol Pennsylvania RTK: Isopropyl alcohol Florida: Isopropyl alcohol Minnesota: Isopropyl alcohol Massachusetts RTK: Isopropyl alcohol New Jersey: Isopropyl alcohol TSCA 8(b) inventory: Water; Isopropyl alcohol; Phenolphthalein, powder

Other Regulations:
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications:
WHMIS (Canada):
Not controlled under WHMIS (Canada).

DSCL (EEC):
R11- Highly flammable. R36- Irritating to eyes. R45- May cause cancer. S2- Keep out of the reach of children. S46- If swallowed, seek medical advice immediately and show this container or label. S53- Avoid exposure - obtain special instructions before use.

Health Hazard: 2
Fire Hazard: 3
Reactivity: 0
Personal Protection: j

National Fire Protection Association (U.S.A.):
Health: 1
Flammability: 3
Reactivity: 0

Specific hazard: Protective Equipment:
Gloves (impervious). Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Splash goggles.

16. Other information

Text of R and S phrase codes used in this safety data sheet:- R34: Causes burns; R36: Irritating to eyes; R37: Irritating to respiratory system; R41: Risk of serious damage to eyes. The information provided about the product on this Safety Data Sheet has been compiled from knowledge of the individual constituents The data given here is based on current knowledge and experience. This Safety Data Sheet describes the product in terms of safety requirements and does not signify any warranty with regard to the product's properties The data given here only applies when pro duct used for proper application(s). The product is not sold as suitable for other applications - usage in such may cause risks not mentioned in this sheet. Do not use for other application(s) without seeking advice from manufacturer.