

1. Product and Company Identification

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Product Name : Tinopal RX
Part Number : RXSOL-12-1778-025

Company Details:

RX MARINE INTERNATIONAL
105, A wing , BSEL , TECH PARK.
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2. Composition / Information on ingredients

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Name of Substance	Cas Number	EINECS No	Wt. %	Symbol
Disodium 2,2'-([1,1'-biphenyl]-4,4'-diylidivinylenyl)bis(benzene)sulphonate)	27344-41-8	248-421-0	-	-
N,N-dimethylformamide	68-12-2	200-679-5	-	-

3. Hazards Identification

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Signal Word	Warning
Hazard Statements	Causes serious eye irritation.
Precautionary statements - prevention	P280 Wear eye/face protection. P264 Wash with plenty of water and soap thoroughly after handling..
Precautionary statements - response	P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P311 If eye irritation persists: Call a POISON CENTER or doctor/physician.
Additional information	The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

4. First Aid Measures

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Eye Contact	Wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
Skin Contact	Wash thoroughly with soap and water.
Inhalation:	Keep patient calm, remove to fresh air, seek medical attention.
Ingestion	Immediately rinse mouth and then drink 200-300 ml of water, seek

5. Fire-fighting Measures

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Suitable extinguishing media

dry powder, foam.

Extinguishing media which must not be used for safety reasons:

carbon dioxide.

Special exposure hazards arising from the substance itself, combustion products, resulting gases:

harmful vapours, carbon oxides, sulfur oxides Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment for fire-fighters:

Wear a self-contained breathing apparatus.

Additional information

The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

6. Accidental Release Measures

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Personal precautions, protective equipment and emergency procedures

Use personal protective clothing. Information regarding personal protective measures. Avoid contact with eyes.

Environmental Precaution

Contain contaminated water/firefighting water. Do not discharge into drains/surface waters/groundwater.

Methods and materials for containment and cleaning up

For small amounts: Pick up with suitable appliance and dispose of. For large amounts: Contain with dust binding material and dispose of. Dispose of absorbed material in accordance with regulations.

7. Handling and Storage

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Advice on safe handling

Breathing must be protected when large quantities are decanted without local exhaust ventilation. Use suitable eye protection. Avoid contact with contaminated tools. Clean equipment and the work area every day. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.

Storage

Further information on storage conditions: Keep container tightly closed and dry; store in a cool place.

Advice on general occupational hygiene

No data available.

8. Exposure controls and personal protection

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Engineering Control

Effective exhaust ventilation system. Maintain air concentrations below occupational exposure standards.

Personal Protection

Respiratory protection: Suitable respiratory protection for lower concentrations or short-term effect: Particle filter with

medium efficiency for solid and liquid particles (e.g. EN 143 or 149, Type P2 or FFP2) Hand protection: Chemical resistant protective gloves (EN 374)

Suitable materials also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), polyvinylchloride (0.7 mm) and other

Supplementary note: The specifications are based on tests, literature data and information of glove

manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g.

temperature) it must be considered, that the practical usage of a chemical-protective glove in

practice may be much shorter than the permeation time determined through testing.

Manufacturer's directions for use should be observed because of great diversity of types.

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection: Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting

boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case

of dust).

Exposure Limits:

Ingredients	CAS No	Form of exposure	Value	UK EH40 OES (table 2)
N,N-dimethylformamide	--	TWA	15 mg/m ³	5 ppm
		STEL	30 mg/m ³	10 ppm
Disodium	--	TWA	--	--
		STP	100 mg/l	--

Hygiene measures

Wearing of closed work clothing is recommended. No eating, drinking, smoking or tobacco use at the place of work. Handle in accordance with good industrial hygiene and safety practice.



Gloves Suit

9. Physical and chemical properties

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Form	granules
Colour	yellow-green
Odour	characteristic
Melting point	300 °C
Boiling point and boiling range	No Data Available
Flash Point	not applicable
Freezing Point	No Data Available
pH	7 - 8.5
Evaporation rate	No data available
Flammability (solid, gas)	not highly flammable

Upper explosion limit	No data available
Lower explosion limit	No data available
Explosive properties	No data available
Vapor pressure	No data available
Relative vapor density	No data available
Density	1.49 g/cm ³ (22 °C)
Relative density	1.49
Water solubility	25 g/l (30 °C)
Solubility in other solvents	No data available
Partition coefficient: octanol	-2.32 (25 °C; pH value: 6.8)
Thermal decomposition	350 °C
Viscosity, kinematic	No data available
Explosive properties	No data available
Oxidizing properties	No data available
Molecular weight	No data available
Bulk density	550 - 670 g/l
pKA	approx. -3 - -2.5
Hygroscopy	The product has not been tested.

10. Stability and reactivity

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Reactivity	No hazardous reactions if stored and handled as prescribed/indicated
Stability	The product is stable if stored and handled as prescribed/indicated.
Possibility of hazardous reactions	The product is not a dust explosion risk as supplied; however the build-up of fine dust can lead to a risk of dust explosions.
Incompatible materials	Substances to avoid: strong oxidizing agents, strong bases, strong acids, reactive chemicals.
Hazardous Decomposition	No hazardous decomposition products if stored and handled as prescribed/indicated.
Condition to Avoid	No data available.
Polymerization	No data available.

11. Toxicological information

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Route of Exposure	No data available
Eyes	non-irritant
Skin	Not irritating to the skin..
Ingestion	No data available
Inhalation	INo data available
Chronic Exposure	No data available
Acute toxicity	Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. The inhalation of dusts represents a potential acute hazard.
Acute inhalation toxicity	No data available
Relevant toxicity	The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.
Classification	Information on: Disodium 2,2'-([1,1'-biphenyl]-4,4'-diyldivynylene)bis(benzenesulphonate) Assessment of carcinogenicity: In long-term animal studies in which the substance was given in high concentrations by feed, a carcinogenic effect was observed. The induction of tumors in animal studies was due to a reversible, nongenotoxic effect for which a threshold dose can be derived. Information on: N,N-dimethylformamide Assessment of carcinogenicity: In long-term studies in rats and mice in which the substance was given by inhalation, a carcinogenic effect was not observed. IARC Group 3 (not

12. Ecological information

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Environmental Effects	The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.
Toxicity to fish	LC50 (96 h) > 10 - < 100 mg/l, Brachydanio rerio (OECD 203; ISO 7346; 84/449/EEC, C.1)
Toxicity to daphnia and others	No data available
Toxicity to algae	No data available
Biodegradability	No data available
Persistence and degradability	Assessment biodegradation and elimination (H ₂ O): Not readily biodegradable (by OECD criteria). Moderately/partially eliminated from water. The product can be degraded abiotically, e.g. chemical or photolytic processes.
Bioaccumulative potential	Assessment bioaccumulation potential: Does not significantly accumulate in organisms
Mobility in soil	Assessment transport between environmental compartments: Volatility: The substance will not evaporate into the atmosphere from the water surface. Adsorption in soil: Adsorption to solid soil phase is expected. Information on: Disodium 2,2'-([1,1'-biphenyl]-4,4'-diyldivynylene)bis(benzenesulphonate) Assessment transport between environmental compartments: Volatility: The substance will not evaporate into the atmosphere from the water surface. Adsorption in soil: Adsorption to solid soil phase is expected.
Additional information	Sum parameter, Chemical oxygen demand (COD): 1,507 mg/g, Biochemical oxygen demand (BOD) Incubation period 5 d: 0 mg/g, Adsorbable organically-bound halogen (AOX): 0 % Add. remarks environm. fate & pathway: Treatment in biological waste water treatment plants has to be performed according to local and administrative regulations. Other ecotoxicological advice: The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

13. Disposal considerations

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Remarks	Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.
Waste Disposal	Must be disposed of or incinerated in accordance with local regulations. The UK Environmental Protection (Duty of Care) Regulations (EP) and amendments should be noted (United Kingdom). This product and any uncleaned containers must be disposed of as hazardous waste in accordance with the 2005 Hazardous Waste Regulations and amendments (United Kingdom).

14. Transport information

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Hazard Pictograms:

UN Number	Not applicable
Proper shipping name	Not applicable
Transport hazard class(es) 8	
ADR/RID	-
Subsidiary risk IMDG	-
Subsidiary risk IATA	-
Packing group	
Packing group	-
Environmental hazards	
Environmental hazards	No
Marine pollutant	No
ADR/RID	
Hazard ID	-
Tunnel Category	-
IMDG	
EmS Code	-
IATA	
Packing Instruction (Cargo)	-
Maximum quantity	-
Packing Instruction (Passenger)	-
Maximum quantity	-

15. Regulatory information

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Regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection. The data should be considered when making any assessment under the Control of Substances Hazardous to Health Regulations (COSHH), and related guidance, for example, 'COSHH Essentials' (United Kingdom)

Chemical safety assessment

Chemical Safety Assessment performed

Further information

no data available.

16. Other information

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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 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.

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