



Safety Data Sheet

Product Name: Peroxynitrite

Reviewed on: 24 May 2012

1. Identification of Substance:

- **GHS Product identifier:** Peroxynitrite
- **Other means of identification:** Catalog Number: **AR006**
- **Application of the substance / the preparation:** For Research Use Only
- **Manufacturer/Supplier:**
R&D Systems Inc.
614 McKinley Place N.E.
Minneapolis, MN 55413 USA
- **For product related questions call:** 1-800-343-7475. In Europe call: +44(0)1235-529449.
- **Emergency information:** In case of a chemical emergency, spill, leak, fire, or accident call **CHEMTREC** at 1-800-424-9300 (US or Canada). Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

2. Hazards Identification:

- **Classification: Regulation (EC) No 1272/2008 [EU-GHS/CLP]:** contains **Sodium Hydroxide**. The other components are not considered hazardous at the concentrations present.
Skin Irrit. 2

Signal Word: **WARNING**



- **Hazard Statements:** H315: Causes skin irritation.
- **Precautionary Statements:** P264: Wash hands thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection.

Responses:

- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
- IF ON SKIN: Rinse skin with plenty of water. Take off contaminated clothing and wash before reuse. If skin irritation occurs: Get medical advice/attention. See specific treatment in this MSDS.
- IF INHALED: Remove victim to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor. See specific treatment in this MSDS.
- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

- **Classification according to EU Directives 67/548/EEC or 1999/45/EC:** Xi: Irritant.
- **R-phrases:** R36/38: Irritating to skin and eyes.
- **S-phrases:** S1/2: Keep locked up and out of reach of children. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39: Wear suitable gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately (show label if possible).
- **Special Hazards:** none.

3. Information on Ingredients:

- **Description:** Sodium Hydroxide

Contains	CAS No.	EC-No.	Index-No.	Content
Sodium Hydroxide	1310-73-2	215-185-5	011-002-00-6	0.5 – 2%
Peroxynitrite	14042-01-4	NA	NA	<1%
Water	7732-18-5	NA	NA	>97%



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4. First Aid Measures:

- IF IN EYES: Rinse thoroughly with water for at least 15 minutes and immediately consult a physician.
- IF ON SKIN (or hair): Immediately take off contaminated clothing or shoes. Wash with plenty of soap and water. Consult a physician.
- IF INHALED: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- IF SWALLOWED: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Immediately consult a physician.
- **Potential acute / delayed health effects:**
 - **Eye contact:** Causes serious eye irritation / causes burns
 - **Skin contact:** Causes skin irritation / causes burns
 - **Inhalation:** Harmful if inhaled. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
 - **Ingestion:** Harmful if swallowed. Irritating to mouth, throat and stomach. / Causes burns
- **Notes to physician:** Consult a physician. Show this safety data sheet to the doctor in attendance.
- **Indication of any immediate medical attention and special treatment needed:** No data available

5. Fire Fighting Measures:

- **Suitable extinguishing agents:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- **Hazards from the substance or mixture:** In case of fire, toxic and corrosive gases may be formed.
- **Special precautions for fire-fighters:** Self contained breathing apparatus and full protective clothing must be worn in case of fire. May emit toxic fumes under fire conditions. May ignite other combustible materials. May be combustible at high temperatures.

6. Accidental Release Measures:

- **Person-related safety precautions:** Use appropriate personal protective equipment to prevent contamination of skin, eyes and personal clothing. Avoid breathing vapors, mist or gas. Ensure adequate ventilation.
- **Measures for environmental protection:** Keep away from drains.
- **Measures for containment and cleaning:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. Handling and Storage:

- **Precautions for safe handling:** Avoid inhalation of vapour or mist. Use normal measures for preventive fire protection.
- **Conditions for safe storage:** Store in a cool, dry place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Avoid freeze/thaw cycles, material may develop pressure.

8. Exposure Controls and Personal Protection:

- **Control parameters:**
 - **Component: Picric Acid:** UK EH40 WEL Workplace Exposure Limits: 2 mg/m³ (15 minutes).
OSHA PEL: TWA 2 mg/m³.
- **Appropriate engineering controls:** Use with adequate ventilation including local extraction. Ensure that eyewash stations and safety showers are close to the workstation location.
- **Individual protection measures:** Wash hands thoroughly after handling chemical products and before eating, smoking or using the toilet. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.
 - **Eye/face protection:** Wear approved safety goggles.
 - **Skin/hand protection:** Handle with protective gloves, plastic or rubber. 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.
 - **Body protection:** Wear suitable protective clothing as protection against splashing or contamination.



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Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved.

Respiratory protection: In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

9. Physical and Chemical Properties:

- **Appearance:** Liquid
- **Odor:** Not available
- **Odor threshold:** Not available
- **pH:** Not available
- **Melting point/freezing point:** Not available.
- **Partition coefficient: noctanol/water:** Not available
- **Flash point:** Not available
- **Water solubility:** soluble
- **Evaporation rate:** Not available
- **Flammability (solid, gas):** Not available
- **Upper/lower flammability or explosive limits:** Not available
- **Vapor density :** Not available
- **Vapor pressure:** Not available
- **Relative density:** Not available
- **Boiling point/Boiling range:** Not available
- **Auto igniting:** Not available
- **Decomposition temperature:** Not available
- **Viscosity:** Not available

10. Stability and Reactivity:

- **Reactivity:** Reaction with water is strongly exothermic.
- **Chemical Stability:** Solution is safe under normal handling conditions.
- **Possibility of hazardous reactions:** Vigorous exothermic reaction when added to water.
- **Conditions to avoid:** Exposure to moisture.
- **Incompatible materials:** Oxidizing agents strong acids, organic materials.
- **Hazardous decomposition products:** May emit toxic gasses including nitrogen oxide. Under fire conditions, carbon oxides, sodium oxides can be formed.

11. Toxicological Information:

- **Acute toxicity:** no data available
- **Skin corrosion/irritation:** 0.5% and 0.1% are irritating to skin.
- **Serious eye damage/irritation:** rabbit eye: 0.4% mild irritation, 1.2% corrosive.
- **Respiratory or skin sensitization:** no data available
- **Germ cell mutagenicity:** no data available.
- **Carcinogenicity:** no data available.
- **Reproductive toxicity:** no data available.
- **Specific target organ toxicity (STOT) -single exposure:** irritating to eyes, skin and respiratory tract.
- **Specific target organ toxicity (STOT) -repeated exposure:** no data available.
- **Aspiration hazard:** no data available.
- **Information on likely routes of exposure:** oral, inhalation, skin/eye contact.
- **Symptoms related to the physical, chemical and toxicological characteristics:**
 - Inhalation:** Burning sensation and cough.
 - Ingestion:** Burning sensation and irritation.
 - Skin contact:** Redness.
 - Eye contact:** Redness and pain.
- **Delayed and immediate effects and also chronic effects from short and long term exposure:** Irritating to eyes, skin and respiratory tract. Long term effects are not expected.

12. Ecological Information:

- **Ecotoxicity:** no data available
- **Biodegradability:** ecosystem dependent based on pH buffering capacity.
- **Bioaccumulative potential:** no data available



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- **Mobility in soil:** no data available.
- **Other adverse effects:** no data available

13. Disposal Considerations:

- **Disposal methods:** Dispose of waste in accordance to applicable national, regional, or local regulations. Contact a licensed professional waste disposal service to dispose of this material. Do not allow to enter the waste stream.
- **Contaminated packaging:** Dispose in the same manner as unused product.

14. Transport Information:

▪ ADR/RID ADN/ADNR IMDG IATA/DOT

ADR/DOT/:	UN Number:	UN 1824
RID	Proper Shipping Name:	Sodium Hydroxide Solution
	Hazard class:	8
	Packing group:	III

IATA:	UN Number:	UN 1824
	Proper Shipping Name:	Sodium Hydroxide Solution
	Hazard class:	8
	Packing group:	III

IMDG:	UN Number:	UN 1824
	Proper Shipping Name:	Sodium Hydroxide Solution
	Hazard class:	8
	Packing group:	III
	Marine Pollutant:	No

15. Regulations:

▪ US Federal and State Regulations

TSCA (Toxic Substances Control Act): Sodium hydroxide is listed.

SARA 313: Sodium hydroxide is not listed.

SARA 311/312 Hazards: Acute Health Hazard.

CERCLA Reportable Quantity: 1,000 pounds

California Proposition 65: Sodium hydroxide is not listed on California's listing of known or potential carcinogens.

16. Other Information:

- **R-phrases:** R36/38: Irritating to skin and eyes.
- **S-phrases:** S1/2: Keep locked up and out of reach of children. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39: Wear suitable gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately (show label if possible).
- **Notice to reader:** To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.