



# SAFETY DATA SHEET

according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Date of issue: 04/24/2014

Version 1.0

## SECTION 1. Identification

### Product identifier

Product number	NC0022
Product name	Sodium Persulfate Technical  [Sodium peroxydisulfate]
CAS-No.	7775-27-1

### Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Reagent for analysis
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### Details of the supplier of the safety data sheet

Company	EMD Millipore Corporation   290 Concord Road, Billerica, MA 01821, United States of America   General Inquiries: +1-978-715-4321   Monday to Friday, 9:00 AM to 4:00 PM Eastern Time (GMT-5)
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Emergency telephone	800-424-9300 CHEMTREC (USA) +1-703-527-3887 CHEMTREC (International) 24 Hours/day; 7 Days/week
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## SECTION 2. Hazards identification

### GHS Classification

Oxidizing solid, Category 3, H272  
Acute toxicity, Category 4, Oral, H302  
Respiratory sensitization, Category 1, H334  
Skin sensitization, Category 1, H317  
Specific target organ systemic toxicity - single exposure, Category 3, Respiratory system, H335  
For the full text of the H-Statements mentioned in this Section, see Section 16.

### GHS-Labeling

*Hazard pictograms*



*Signal Word*  
Danger

*Hazard Statements*  
H272 May intensify fire; oxidizer.

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NC0022

Version 1.0

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H302 Harmful if swallowed.

H317 May cause an allergic skin reaction.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H335 May cause respiratory irritation.

### *Precautionary Statements*

P280 Wear protective gloves.

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.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician.

### **OSHA Hazards**

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS and may deviate from the GHS information.

### **Other hazards**

None known.

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## **SECTION 3. Composition/information on ingredients**

Formula	Na <sub>2</sub> S <sub>2</sub> O <sub>8</sub>	Na <sub>2</sub> O <sub>8</sub> S <sub>2</sub> (Hill)
Molar mass	238.11 g/mol	

### **Hazardous ingredients**

*Chemical Name (Concentration)*

CAS-No.

*disodium peroxodisulphate (>= 90 % - <= 100 % )*

7775-27-1

Exact percentages are being withheld as a trade secret.

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## **SECTION 4. First aid measures**

### **Description of first-aid measures**

*General advice*

First aider needs to protect himself.

*Inhalation*

After inhalation: fresh air. Call in physician.

*Skin contact*

After skin contact: wash off with plenty of water. Remove contaminated clothing.

Consult a physician.

*Eye contact*

After eye contact: rinse out with plenty of water.

*Ingestion*

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

Never give anything by mouth to an unconscious person.

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Product number

NC0022

Version 1.0

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## Most important symptoms and effects, both acute and delayed

Irritation and corrosion, Allergic reactions, Cough, Shortness of breath, Nausea, Vomiting, Headache

## Indication of any immediate medical attention and special treatment needed

No information available.

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## SECTION 5. Fire-fighting measures

### Extinguishing media

#### *Suitable extinguishing media*

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### *Unsuitable extinguishing media*

For this substance/mixture no limitations of extinguishing agents are given.

### Special hazards arising from the substance or mixture

Not combustible.

Has a fire-promoting effect due to release of oxygen.

Risk of dust explosion.

Ambient fire may liberate hazardous vapors.

Fire may cause evolution of:

Sulfur oxides

### Advice for firefighters

#### *Special protective equipment for fire-fighters*

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*

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

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.

### Environmental precautions

Do not empty into drains.

### Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills.

Observe possible material restrictions (see sections 7 and 10).

Take up carefully. Dispose of properly. Clean up affected area.

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Product number

NC0022

Version 1.0

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## SECTION 7. Handling and storage

### Precautions for safe handling

Observe label precautions.

Work under hood. Do not inhale substance/mixture.

### Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Away from combustible materials and sources of ignition and heat.

No declaration

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## SECTION 8. Exposure controls/personal protection

### Exposure limit(s)

#### Ingredients

Basis	Value	Threshold limits	Remarks
<i>disodium peroxodisulphate 7775-27-1</i>			
ACGIH	Time Weighted Average (TWA):	0.1 mg/m <sup>3</sup>	Expressed as: as persulfate

### Engineering measures

Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.

### Individual protection measures

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired at the respective supplier.

#### Hygiene measures

Immediately change contaminated clothing. Apply skin- protective barrier cream. Wash hands and face after working with substance.

#### Eye/face protection

Safety glasses

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

#### Other protective equipment:

protective clothing

#### Respiratory protection

required when dusts are generated.

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

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## SECTION 9. Physical and chemical properties

Physical state

solid

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according to the (US) Hazard Communication Standard (29 CFR 1910.1200)

Product number NC0022 Version 1.0  
Product name Sodium Persulfate Technical <br/>[Sodium peroxydisulfate]

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Color	white
Odor	odorless
Odor Threshold	not applicable
pH	3.5 - 3.8 at 100 g/l 68 °F (20 °C)
Melting point	No information available.
Boiling point/boiling range	not applicable
Flash point	does not flash
Evaporation rate	No information available.
Flammability (solid, gas)	The product is not flammable.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Vapor pressure	not applicable
Relative vapor density	No information available.
Density	1.2 g/cm <sup>3</sup> at 68 °F (20 °C)
Relative density	No information available.
Water solubility	545 g/l at 68 °F (20 °C)
Partition coefficient: n-octanol/water	No information available.
Autoignition temperature	No information available.
Decomposition temperature	ca.356 °F (180 °C)
Viscosity, dynamic	No information available.
Explosive properties	Not classified as explosive.
Oxidizing properties	The substance or mixture is classified as oxidizing with the category 3.
Ignition temperature	not combustible

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Bulk density

ca.1,150 kg/m<sup>3</sup>

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### SECTION 10. Stability and reactivity

#### Reactivity

Oxidizing  
strong oxidizing agent  
Risk of dust explosion.

#### Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

#### Possibility of hazardous reactions

Violent reactions possible with:

Reducing agents, combustible substances, Alcohols, Strong acids, Bases, Heavy metal salts

#### Conditions to avoid

Strong heating (decomposition).  
Exposure to moisture.

#### Incompatible materials

no information available

#### Hazardous decomposition products

in the event of fire: See section 5.

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### SECTION 11. Toxicological information

#### Information on toxicological effects

##### *Likely route of exposure*

Eye contact, Skin contact, Ingestion

##### *Acute oral toxicity*

LD50 rat: 920 mg/kg (IUCLID)

Symptoms: Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

absorption

##### *Acute inhalation toxicity*

LC50 rat: > 5.1 mg/l; 4 h (External MSDS)

Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:, damage of respiratory tract, After a latency period:, Lung edema

Irritating to respiratory system.

##### *Acute dermal toxicity*

LD50 rabbit: > 10,000 mg/kg  
(External MSDS)

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*Skin irritation*

rabbit

Result: No irritation

(IUCLID)

*Eye irritation*

rabbit

Result: No eye irritation

(IUCLID)

*Sensitization*

Sensitization test: guinea pig

Result: positive

Method: OECD Test Guideline 406

May cause sensitization by inhalation and skin contact.

*Genotoxicity in vitro*

Ames test

Result: negative

(IUCLID)

*Specific target organ systemic toxicity - single exposure*

May cause respiratory irritation.

*Specific target organ systemic toxicity - repeated exposure*

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

*Aspiration hazard*

Regarding the available data the classification criteria are not fulfilled.

**Carcinogenicity**

IARC

No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No ingredient of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Further information**

Systemic effects:

Nausea, Vomiting, Headache

Other dangerous properties can not be excluded.

Handle in accordance with good industrial hygiene and safety practice.

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NC0022

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## SECTION 12. Ecological information

### Ecotoxicity

#### *Toxicity to fish*

LC50 *Oncorhynchus mykiss* (rainbow trout): 771 mg/l; 96 h (IUCLID)

#### *Toxicity to daphnia and other aquatic invertebrates*

EC50 *Daphnia magna* (Water flea): 133 mg/l; 48 h (IUCLID)

### Persistence and degradability

#### *Biodegradability*

The methods for determining the biological degradability are not applicable to inorganic substances.

### Bioaccumulative potential

No information available.

### Mobility in soil

No information available.

#### *Additional ecological information*

Biological effects:

Reacts with water to form toxic decomposition products.

Discharge into the environment must be avoided.

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## SECTION 13. Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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## SECTION 14. Transport information

### Land transport (DOT)

UN number	UN 1505
Proper shipping name	SODIUM PERSULPHATE
Class	5.1
Packing group	III
Environmentally hazardous	--

### Air transport (IATA)

UN number	UN 1505
Proper shipping name	SODIUM PERSULPHATE
Class	5.1
Packing group	III
Environmentally hazardous	--

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**Special precautions for user** no

**Sea transport (IMDG)**

**UN number** UN 1505

**Proper shipping name** SODIUM PERSULPHATE

**Class** 5.1

**Packing group** III

**Environmentally hazardous** --

**Special precautions for user** yes

**EmS** F-A S-Q

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**SECTION 15. Regulatory information**

**United States of America**

**OSHA Hazards**

Oxidizer  
Harmful if swallowed.  
Respiratory irritant  
Skin sensitizer  
Respiratory sensitizer

This information is based on 29 CFR 1910.1200 criteria prior to adoption of the GHS, and may deviate from the GHS information on the label and in section 2.

**SARA 311/312 Hazards**

Fire Hazard  
Acute Health Hazard

**SARA 313**

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 302**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

**DEA List I**

Not listed

**DEA List II**

Not listed

**US State Regulations**

**Massachusetts Right To Know**

Remarks

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NC0022

Version 1.0

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---

No components are subject to the Massachusetts Right to Know Act.

## **Pennsylvania Right To Know**

### *Ingredients*

disodium peroxodisulphate

## **New Jersey Right To Know**

### *Ingredients*

disodium peroxodisulphate

## **California Prop 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

## **Notification status**

TSCA: All components of the product are listed in the TSCA-inventory.

DSL: All components of this product are on the Canadian DSL.

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## **SECTION 16. Other information**

### **Training advice**

Provide adequate information, instruction and training for operators.

### **Full text of H-Statements referred to under sections 2 and 3.**

H272	May intensify fire; oxidizer.
H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.

### **Key or legend to abbreviations and acronyms used in the safety data sheet**

Used abbreviations and acronyms can be looked up at [www.wikipedia.org](http://www.wikipedia.org).

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The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to appropriate safety precautions. It does not represent a warranty of any product properties and we assume no liability for any loss or injury which may result from the use of this information. Users should conduct their own investigations to determine the suitability of the information.

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