



Sodium Percarbonate

1. Chemical Product and enterprise information

Product Name.....Sodium Percarbonate
Chemical Name.....Sodium Carbonate Peroxyhydrate
Synonyms.....SPC,Sodium Percarbonate, Sodium Carbonate Peroxide
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MSDS No.....HYS-PC-061001-03
Effective Date.....October1, 2006

2. Composition/Information on Ingredients

Components	Sodium Percarbonate	Sodium Carbonate
Chemical Formula	2Na ₂ CO ₃ ·3H ₂ O ₂	Na ₂ CO ₃
CAS No.	15630-89-4	497-19-812
Percent	≥88.0	~12.0

3. Hazards Identification

♀ Emergency overview:

- ▶ Toxicity effects principally related to its irritating properties.
- ▶ Does not present any significant hazard for the environment.
- ▶ Supports combustion of other substances (oxidizing product).

♀ Potential health effects:

- ▶ General: Irritating to mucous membrane, eyes and skin.

♀ Inhalation:

- ▶ Slight nose and throat irritation.
- ▶ At high concentrations, cough.
- ▶ In case of repeated or prolonged exposure: risk of sore throat, nose bleeds ,chronic bronchitis.

♀ Eye contact:

- ▶ Severe eye irritation, watering and redness, can cause burns to the eye.





- ▶ Risk of serious or permanent eye lesions.
- ▶ Slight irritation.
- ▶ In case of repeated contact: risk of dermatitis.

♀ **Ingestion:**

- ▶ Severe irritation of the mouth, throat, esophagus and stomach.
- ▶ Bloating of stomach, belching.
- ▶ Nausea, vomiting and diarrhea.

4. First-Aid Measures

♀ **General Recommendations:**

Do not dye soiled clothing near an open flame or incandescent heat source.

♀ **Inhalation:**

- ▶ Remove the subject from dusty environment.
- ▶ Consult with a physician in case of respiratory symptoms.

♀ **Eye contact:**

- ▶ Flush eyes with running water for 15 minutes, while keeping the eyelids wide open.
- ▶ Consult with an ophthalmologist in all cases.

♀ **Skin contact:**

- ▶ Remove contaminated shoes, socks and clothing; wash the affected skin with running water.
- ▶ Clean clothing.
- ▶ Consult a physician in case of persistent pain or redness.

♀ **Ingestion:**

- ▶ Consult with a physician in all cases
- ▶ If the subject is completely conscious, rinse mouth and administer fresh water. Don't induce vomiting.
- ▶ If the subject is unconscious, loosen collar and tight clothing, lay the victim on his/her left side, give nothing by mouth. Keep warm with blanket.
- ▶ Don't induce vomiting.



5. Fire-Fighting Measures

Flash Point.....	Not applicable
Flammability.....	Non-flammable
Auto-ignition temperature.....	Not applicable
Danger of explosion.....	Non-explosive
Common extinguishing methods.....	Water
Specific hazards.....	Oxidizing substance



- ♀ Oxygen released on exothermic decomposition may support combustion.
- ♀ Pressure burst may occur due to decomposition in confined spaces or containers.

♀ **Fire fighting instructions:**

- ▶ Evacuate all nonessential personnel.
- ▶ Personnel should wear normal protective equipment(full bunker gear) and positive pressure self-contained breathing apparatus.
- ▶ Intervention only by capable personnel who are trained and aware of the hazards of the product.
- ▶ If safe to do so, remove unaffected product to a safe area.

6. Accidental Release Measures

♀ **Precautions:**

- ▶ Observe the protection measures given in sections 5 and 8.
- ▶ Avoid materials and products which are incompatible with the product(see section 10)
- ▶ Avoid direct contact of the product with water.

♀ **Cleanup methods:**

- ▶ Collect the product with suitable means, shovel or sweep, avoiding dust formation.
- ▶ All receiving equipment should be clean, dry, vented, labeled and made of material that is compatible with the product.
- ▶ Don't return spilled or contaminated material to inventory.
- ▶ Clean the area with large quantities of water.
- ▶ For disposal methods, refer to section 13.

7. Handling and Storage

♀ **Handling:**

- ▶ Clean and dry process piping and equipment before using this product.
- ▶ Never return unused product to original storage container.
- ▶ Keep away from incompatible products.
- ▶ Containers and equipment used to handle the product should be used exclusively for that product.
- ▶ Avoid any contact with water or humidity.
- ▶ For more information, consult the supplier.

♀ **Storage:**

- ▶ In a dry area.
- ▶ Protect from direct sunlight.
- ▶ Keep away from heat sources
- ▶ Keep away from reactive products(see section 10).
- ▶ Store in vented containers.





- ▶ Store at temperatures less than 40°C (104°F).

8. Exposure Controls/Personal Protection

♀ Engineering Controls:

Provide ventilation in work areas when necessary to minimize dust and irritation and to comply with the following applicable limits:

♀ Eye/face protection:

Dust proof chemical goggles.

♀ Hand protection:

- ▶ Protective gloves-chemical resistant.
- ▶ Recommended material: PVC, neoprene or rubber.

♀ Skin protection:

For brief contact, few precautions other than clean body- covering clothing should be needed. When prolonged or frequently repeated contact could occur, use protective, full body clothing, such as PVC or rubber, impervious to this material.

♀ Respiratory protection:

For many conditions, no respiratory protection may be needed; however, in dusty or unknown atmospheres or when exposures exceed limit values, use a NIOSH approved dust respirator.

♀ Other precautions:

- ▶ Safety shower and eyewash stations.
- ▶ Consult a health and safety expert for the selection of personal protective equipment suitable for the working conditions.

9. Physical and Chemical Properties

Appearance.....White or colour granular solid.
Odor.....None
Bulk Density.....0.80-1.0g/cm³
Solubility.....140g/L @ 24°C (75°F) PH, 3% solution: 10.0-11.0
Decomposition Temperature.....Self-accelerating decomposition with oxygen release starting from 50°C

10. Stability and Reactivity

♀ Stability:

Stable, under certain conditions(see below).

♀ Conditions to avoid:

Heat/Sources of heat.Moisture.





♀ **Materials to avoid:**

Water, Acids, Bases, Salts of heavy metals, Reducing agents, Organic materials, Flammable substances.

♀ **Other information:**

Decomposition releases steam/heat.

11. Toxicological Information

♀ **Acute toxicity:**

- ▶ Oral route –LD50, rat(combined sexes),1034 mg/kg.
- ▶ Dermal route-LDLo, rabbit, >2000mg/kg.
- ▶ Inhalation,LC0, 1 hour, rat, >4580mg/m3.

♀ **Irritation:**

- ▶ Eyes, severe damage, rabbit.
- ▶ Skin, slightly irritating, rabbit.

♀ **Sensitization:**

- ▶ No sensitization was noted when administered as a 75% w/v mixture during induction and as a 25% w/v mixture at challenge.
- ▶ Comments: Toxic effect linked with irritant properties.

12. Ecological Information

♀ **Acute ecotoxicity:**

- ▶ Fish, pimephales promelas, LC50, 70.7mg/L.
- ▶ Fish, Pimephales promelas, NOEC, 96 hours, 1mg/L.
- ▶ Crustaceans,Daphnia pulex, EC50, 4.9mg/L.

♀ **Mobility:**

- ▶ Air: Not applicable.
- ▶ Water: Considerable solubility and mobility.
- ▶ Soil/sediments, percolation: Non-significant adsorption.

♀ **Abiotic degradation:**

- ▶ Air: Not applicable
- ▶ Water: Significant hydrolysis.
- ▶ Degradation's products: sodium carbonate, carbon dioxide, bicarbonate, carbonate, hydrogen peroxide.
- ▶ Soil: Hydrolysis.

♀ **Potential for bioaccumulation:**

Non-bioaccumuable.

♀ **Comments:**

- ▶ Toxic for aquatic organisms. Nevertheless, hazard for the aquatic environment is





limited due to produce properties.

- ▶ Not bioaccumuable.
- ▶ Abiotic degradation.
- ▶ Low toxicity of degradation products.

13. Disposal Considerations

Dispose of in an approved waste facility operated by an authorized contractor in compliance with federal, state and local regulations.

♀ Packing treatment:

The empty and clean containers are to be recycled or disposed of in conformity with local regulations.

14. Transport Information

D.O.T. Proper Shipping Name: Oxidizing solid, n.o.s.(sodium carbonate peroxyhydrate)

UN Number: 1479

Hazard Class: 5.1

Label(s): 5.1(Oxidizer)

Packing Group: II

15. Rule of Law Information

Statute of Chemical Dangerous Goods' Safety Administration (issued by the State Department on January 09, 2002), Detail Rules for the Statute of Chemical Dangerous Goods' Safety Administration (Hua lao fa No.677 [1992]), Regulations of Safely Using Chemicals in Working Yard ([1996] lao bu fa No.423) and so on, have all made correspondence prescription for the safe usage, production, storage, transportation and pack-loading of these dangerous chemicals. The common chemical classifying and symboling terms (GB 13690-92) identifies this chemical as the type of 5.1.

16. Other Information

The data in this Material Safety Data Sheet is believed to be correct. However, since conditions of use are outside our control it should not taken as a warranty of representation for which Henan Hongye Chemical Co., Ltd. assumes legal responsibility. This information is provided solely for your consideration, investigation, and verification.

