1. Product and Company Identification

Product Name: PREVENTOL ON EXTRA PRESERVATIVE
Material Number: 56705647
EPA Registration Number: 39967-24
Chemical Family: Phenol
Chemical Name: (1,1'-Biphenyl)-2-ol, sodium salt
CAS-No.: 132-27-4

2. Hazards Identification

Emergency Overview

Corrosive. Water runoff from fire fighting may be corrosive. Dust/air mixtures may be a
fire and explosion hazard when exposed to high temperature or ignition sources. Causes
respiratory tract burns. Causes skin burns. Causes eye burns. Causes digestive tract
burns. May be harmful if swallowed.

Potential Health Effects

Primary Routes of Entry: Skin Contact, Eye Contact, Ingestion, Inhalation
Medical Conditions Aggravated by Exposure: Skin disorders, Respiratory disorders, Eye disorders

HUMAN EFFECTS AND SYMPTOMS OF OVEREXPOSURE

Acute Inhalation
For Component: Sodium o-phenylphenolate
Corrosive with symptoms of coughing, burning, ulceration, and pain.

For Component: Sodium hydroxide
Corrosive with symptoms of coughing, burning, ulceration, and pain.
Acute Skin
For Component: Sodium o-phenylphenolate
Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.

For Component: Sodium hydroxide
Corrosive with symptoms of reddening, itching, swelling, burning and possible permanent damage.

Acute Eye
For Component: Sodium o-phenylphenolate
Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage. May cause corneal injury.

For Component: Sodium hydroxide
Corrosive with symptoms of reddening, tearing, swelling, burning and possible permanent damage.

Acute Ingestion
For Component: Sodium o-phenylphenolate
May be harmful if swallowed. May cause digestive tract burns. Symptoms of ingestion may include abdominal pain, nausea, vomiting, and diarrhea.

For Component: Sodium hydroxide
Harmful if swallowed. Corrosive to the digestive tract with symptoms of burning and ulceration.

General Effects of Exposure
Chronic Effects of Exposure
For Product: PREVENTOL ON EXTRA PRESERVATIVE
See Toxicological Information

Carcinogenic Effects
For Component: Sodium o-phenylphenolate
Ortho-phenylphenol and Sodium ortho-phenylphenate were tested in accordance with the EPA Final Guideline for Carcinogen Risk. OPP and Na-OPP were classified as "Not Likely to be Carcinogenic to Humans" based on no evidence of carcinogenic effects at the defined dose range of 200 mg/kg/day. At doses greater than 200 mg/kg/day, OPP and Na-OPP were classified as "Likely to be Carcinogenic to Humans" based on the presence of urinary bladder tumors in rats and the presence of liver tumors in mice.

Carcinogenicity:
Sodium o-phenylphenolate IARC - Overall evaluation: 2B Possibly carcinogenic to humans.
IARC - Evidence of carcinogenicity in humans: Inadequate data.
IARC - Evidence of carcinogenicity in animals: Sufficient data.

3. Composition/Information on Ingredients

Hazardous Components

<table>
<thead>
<tr>
<th>Weight %</th>
<th>Components</th>
<th>CAS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>71.7%</td>
<td>Sodium o-phenylphenolate</td>
<td>132-27-4</td>
</tr>
<tr>
<td>&lt;=2%</td>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Eye Contact
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated. Call a physician immediately.

**Skin Contact**
Wash off immediately with plenty of water for at least 15 minutes. Immediately remove contaminated clothing and shoes. Call a physician immediately. Wash clothing and shoes before reuse.

**Inhalation**
If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Call a physician immediately.

**Ingestion**
Do not induce vomiting. If conscious, give 2 glasses of water. Get immediate medical attention.

### 5. Fire-Fighting Measures

**Suitable Extinguishing Media:** water, foam, dry chemical

**Special Fire Fighting Procedures**
Firefighters should be equipped with self-contained breathing apparatus to protect against potentially toxic and irritating fumes.

**Unusual Fire/Explosion Hazards**
Water runoff from fire fighting may be corrosive. Dust may form explosive mixtures with air. Toxic and irritating gases/fumes may be given off during burning or thermal decomposition.

### 6. Accidental release measures

**Spill and Leak Procedures**
Cleanup personnel must use appropriate personal protective equipment. Remove all sources of ignition, including flames, heat, and sparks. Use explosion-proof equipment. Use grounded or non-sparking tools and equipment. Remove mechanically by a method that minimizes the generation of airborne dust (vacuum cleaner, wet mopping, etc.) Ensure vacuum cleaners are approved for explosible dusts. Do not use compressed air for cleaning. Collect and place in appropriately marked sealable containers for disposal.

### 7. Handling and Storage

**Storage Period**
Indefinite if stored in the original unopened container away from moisture and excessive heat. Indefinite if protected from light.

**Handling/Storage Precautions**
This product may form exploisible dust/air mixtures. Avoid creating dust and dust clouds. Remove all sources of ignition, including flames, heat, and sparks. Ground and bond containers and equipment before transferring to avoid static sparks. Use non-sparking tools and equipment. Consult National Fire Protection Association (NFPA) 654 Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids for details on the safe handling and equipment design. Do not breathe vapours/dust. Do not get on skin or clothing. Do not get in eyes. Do not taste or swallow. Use only with adequate ventilation/personal protection. Wash thoroughly after handling. Keep
container closed when not in use.

**Further Info on Storage Conditions**
Store in a cool dry place. Store in original or similar containers. Minimize dust generation and accumulation, especially on elevated surfaces (e.g., roof beams and trusses, ventilation ducts, wall sills). A dust layer just 1/32nd of an inch (0.793 mm) deep on elevated surfaces may create a dust cloud explosion hazard. Protect equipment (e.g. storage bins, conveyors, dust collectors) with explosion vents.

### 8. Exposure Controls / Personal Protection

**Sodium hydroxide (1310-73-2)**

- **US. ACGIH Threshold Limit Values**
  - Ceiling Limit Value: 2 mg/m3

- **US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**
  - PEL: 2 mg/m3

**Industrial Hygiene/Ventilation Measures**
General dilution and local exhaust as necessary to control airborne vapors, mists, dusts and thermal decomposition products below appropriate airborne concentration standards/guidelines.

**Respiratory Protection**
NIOSH approved powered air-purifying particulate respirator with N-100 filters.

**Hand Protection**
rubber gloves

**Eye Protection**
Tight fitting chemical goggles (non-vented)

**Skin and body protection**
Tyvek coverall or equivalent

**Additional Protective Measures**
Employees should wash their hands and face before eating, drinking, or using tobacco products. Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations must be available. Minimize dust generation and accumulation, especially on elevated surfaces (e.g., roof beams and trusses, ventilation ducts, wall sills). A dust layer just 1/32nd of an inch (0.793 mm) deep on elevated surfaces may create a dust cloud explosion hazard.

### 9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form:</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance:</td>
<td>Powder, flakes</td>
</tr>
<tr>
<td>Color:</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>slight</td>
</tr>
<tr>
<td>pH:</td>
<td>11.1 - 11.8 @ 20 g/l</td>
</tr>
<tr>
<td>Boiling Point/Range:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>Not Established</td>
</tr>
<tr>
<td>Density:</td>
<td>Approximately 1.36 g/cm3 @ 20 °C (68 °F)</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>1,200 g/l @ 25 °C (77 °F)</td>
</tr>
<tr>
<td>Softening Point:</td>
<td>Approximately 80 °C (176 °F)</td>
</tr>
<tr>
<td>Bulk Density:</td>
<td>400 - 550 kg/m3</td>
</tr>
</tbody>
</table>
10. Stability and Reactivity

Hazardous Reactions
Hazardous polymerization does not occur.

Stability
Stable

Materials to avoid
Oxidizing agents, Reducing agents

Conditions to avoid
Heat, flames and sparks.

Hazardous decomposition products
By Fire and Thermal Decomposition: Carbon oxides

11. Toxicological Information

Toxicity Data for Sodium o-phenylphenolate

Acute Oral Toxicity
LD50: 1,720 mg/kg (rat)
LD50: 656 mg/kg (Rat)
LD50: 846 mg/kg (Rat, Male)
LD50: 591 mg/kg (Rat, Female)

Acute Inhalation Toxicity
LC50: >1331 mg/m³, aerosol, 1 h (rat)

Skin Irritation
rabbit, Exposure Time: 4 h, Corrosive
Severe skin irritation

Eye Irritation
rabbit, Corrosive

Sensitization
dermal: non-sensitizer (Guinea pig)
Did not cause sensitization on laboratory animals.

Mutagenicity
Genetic Toxicity in Vitro:
Positive and negative results were seen in various in vitro studies.

Genetic Toxicity in Vivo:
Positive and negative results were seen in various in vivo studies.

Carcinogenicity
Sodium ortho-phenylphenate produced urinary bladder carcinomas in rats following oral administration. It increased the incidences of haemangiosarcomas of the liver and of hepatocellular carcinomas in male mice after oral administration.
Ortho-phenylphenol and Sodium ortho-phenylphenate were tested in accordance with the EPA Final Guideline for Carcinogen Risk. OPP and Na-OPP were classified as "Not Likely to be Carcinogenic to
Humans” based on no evidence of carcinogenic effects at the defined dose range of 200 mg/kg/day. At doses greater than 200 mg/kg/day, OPP and Na-OPP were classified as "Likely to be Carcinogenic to Humans“ based on the presence of urinary bladder tumors in rats and the presence of liver tumors in mice.

**Developmental Toxicity/Teratogenicity**
mouse, oral, gestation days 7-15, NOAEL (teratogenicity): < 900 mg/kg, Fetotoxicity has been observed in animal studies.

**Toxicity Data for Sodium hydroxide**

**Acute Oral Toxicity**
LD50: 140 - 340 mg/kg (Rat)

**Acute dermal toxicity**
LD50: 1,350 mg/kg (rabbit)

**Skin Irritation**
rabbit, Corrosive

**Eye Irritation**
rabbit, Corrosive

**Mutagenicity**
Genetic Toxicity in Vitro:
Ames: negative (Salmonella typhimurium)
Positive and negative results were seen in various in vitro studies.
Genetic Toxicity in Vivo:
Micronucleus Assay: negative (mouse, Male/Female, intraperitoneal)

12. Ecological Information

**Ecological Data for Sodium o-phenylphenolate**

**Biodegradation**
> 80 %,
Readily biodegradable.

**Bioaccumulation**
22 BCF
Not expected to bio-accumulate.

**Acute and Prolonged Toxicity to Fish**
LC0: 20 mg/l (Golden orfe (Leuciscus idus), 96 h)
LC50: 2.6 mg/l (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 h)

**Toxicity to Microorganisms**
EC0: 1,000 mg/l, (Pseudomonas fluorescens)

**Ecological Data for Sodium hydroxide**

**Acute and Prolonged Toxicity to Fish**
LC50: 45.4 mg/L (50 %, pH 8) (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 hrs)

**Acute Toxicity to Aquatic Invertebrates**
LC100: 156 mg/L (pH 9.1 - 935) (Water flea (Daphnia magna))

**Toxicity to Aquatic Plants**
Lethal from pH 8.5, (other: algae)

13. Disposal considerations

Waste Disposal Method
Waste disposal should be in accordance with existing federal, state, provincial, and/or local environmental control laws.

Empty Container Precautions
Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Label precautions also apply to this container when empty.

14. Transport information

Land transport (DOT)
Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. (contains 2-Hydroxybiphenyl Sodium Salt)
Hazard Class or Division: 8
UN/NA Number: UN3263
Packaging Group: III
Hazard Label(s): Corrosive

Sea transport (IMDG)
Proper Shipping Name: CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (contains 2-Hydroxybiphenyl Sodium Salt)
Hazard Class or Division: 8
UN-No: UN3263
Packaging Group: III
Hazard Label(s): Corrosive

Air transport (ICAO/IATA)
Proper Shipping Name: Corrosive solid, basic, organic, n.o.s. (contains 2-Hydroxybiphenyl Sodium Salt)
Hazard Class or Division: 8
UN-No: UN3263
Packaging Group: III
Hazard Label(s): Corrosive

15. Regulatory Information

United States Federal Regulations
OSHA Hazcom Standard Rating: Hazardous
US. Toxic Substances Control Act: This product is excluded from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.
FIFRA Status: This product is registered with the EPA under FIFRA.
EPA Registration number: 39967-24
US. EPA CERCLA Hazardous Substances (40 CFR 302):

**Components**
- Sodium o-phenylphenolate: Included in the regulation but with no data values. See regulation for further details
- Sodium hydroxide: Reportable quantity: 1,000 lbs

SARA Section 311/312 Hazard Categories:
- Acute Health Hazard, Chronic Health Hazard

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):

**Components**
- None

US. EPA Emergency Planning and Community Right-To-Know Act (EPCRA) SARA Title III Section 313 Toxic Chemicals (40 CFR 372.65) - Supplier Notification Required:

**Components**
- Sodium o-phenylphenolate

When discarded in its purchased form, this product meets the criteria of corrosivity, and should be managed as a hazardous waste (EPA Hazardous Waste Number D002). (40 CFR 261.20-24)

**State Right-To-Know Information**
The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

**Massachusetts, New Jersey or Pennsylvania Right to Know Substance Lists:**

<table>
<thead>
<tr>
<th>Weight %</th>
<th>Components</th>
<th>CAS-No.</th>
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<tbody>
<tr>
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<td>Sodium o-phenylphenolate</td>
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</tr>
<tr>
<td>&gt;=1%</td>
<td>Water</td>
<td>7732-18-5</td>
</tr>
<tr>
<td>&lt;=2%</td>
<td>Sodium hydroxide</td>
<td>1310-73-2</td>
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**New Jersey Environmental Hazardous Substances List and/or New Jersey RTK Special Hazardous Substances Lists:**

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**MA Right to Know Extraordinarily Hazardous Substance List:**

<table>
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**California Prop. 65:**
Warning! This product contains chemical(s) known to the State of California to be Carcinogenic.

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16. Other Information
NFPA 704M Rating

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Other</td>
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</tr>
</tbody>
</table>

0=Insignificant  1=Slight  2=Moderate  3=High  4=Extreme

HMIS Rating

<p>| | |</p>
<table>
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<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3*</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical Hazard</td>
<td>0</td>
</tr>
</tbody>
</table>

0=Minimal  1=Slight  2=Moderate  3=Serious  4=Severe
* = Chronic Health Hazard

LANXESS Corporation's method of hazard communication is comprised of Product Labels and Material Safety Data Sheets. HMIS and NFPA ratings are provided by LANXESS Corporation as a customer service.

Contact Person: Product Safety Department
Telephone: (800) LANXESS
MSDS Number: R305519
Version Date: 10/07/2009
Report Version: 3.3

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