1. Identification

Product identifier: ORGANIC HALOGEN REAGENT, (Sodium Biphenyl Solution)

Other means of identification:
- Product code: 5005
- Synonyms: SODIUM BIPHENYL * BIPHENYL SODIUM * HALOGEN REAGENT

Recommended use: professional, scientific and technical activities: other professional, scientific and technical activities

Recommended restrictions: None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
- Manufacturer: GFS Chemicals, Inc.
- Address: P.O. Box 245, Powell, OH 43065, United States
- Telephone: Phone 740-881-5501, Toll Free 800-858-9682, Fax 740-881-5989
- Website: www.gfschemicals.com
- E-mail: service@gfschemicals.com
- Emergency phone number: Emergency Assistance Chemtrec 800-424-9300

2. Hazard(s) identification

Physical hazards: Flammable liquids (Category 3)

Health hazards:
- Skin corrosion/irritation (Category 2)
- Serious eye damage/eye irritation (Category 2A)
- Reproductive toxicity (Category 2)
- Specific target organ toxicity, single exposure (Category 3 respiratory tract irritation)
- Specific target organ toxicity, repeated exposure (Category 1)

Environmental hazards:
- Hazardous to the aquatic environment, acute hazard (Category 1)
- Hazardous to the aquatic environment, long-term hazard (Category 1)

OSHA defined hazards: Not classified.

Label elements

Signal word: Danger

Hazard statement: Flammable liquid and vapor. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Precautionary statement

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a POISON CENTER or doctor/physician if you feel unwell. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

Storage

Keep cool. Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information

2.8% of the mixture consists of component(s) of unknown acute oral toxicity. 72.2% of the mixture consists of component(s) of unknown acute dermal toxicity. 69.4% of the mixture consists of component(s) of unknown acute inhalation toxicity. 72.2% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 72.2% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>ETHYL DIGLYME</td>
<td>DIETHYLENE GLYCOL DIETHYL ETHER</td>
<td>112-36-7</td>
<td>60 - &lt; 70*</td>
</tr>
<tr>
<td>BIPHENYL</td>
<td>DIPHENYL</td>
<td>92-52-4</td>
<td>20 - &lt; 30*</td>
</tr>
<tr>
<td>SODIUM</td>
<td></td>
<td>7440-23-5</td>
<td>1 - &lt; 3*</td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion

Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Headache. Nausea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Specific methods

Use standard firefighting procedures and consider the hazards of other involved materials.

General fire hazards

Flammable liquid and vapor.
6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

- Use water spray to reduce vapors or divert vapor cloud drift. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. This product is miscible in water. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

- Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.

- Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Environmental precautions

- Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

- Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices. Handle under nitrogen, protect from moisture.

Conditions for safe storage, including any incompatibilities

- Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

- The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIPHENYL (CAS 92-52-4)</td>
<td>1 mg/m³ 0.2 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. ACGIH Threshold Limit Values Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIPHENYL (CAS 92-52-4)</td>
<td>TWA 0.2 ppm</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>US. NIOSH: Pocket Guide to Chemical Hazards Components</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIPHENYL (CAS 92-52-4)</td>
<td>TWA 1 mg/m³ 0.2 ppm</td>
</tr>
</tbody>
</table>

Biological limit values: No biological exposure limits noted for the ingredient(s).

Exposure guidelines

US - California OELs: Skin designation

- ETHYL DIGLYME (CAS 112-36-7) Can be absorbed through the skin.
Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels at an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

**Eye/face protection**

Wear safety glasses with side shields (or goggles).

**Skin protection**

Wear appropriate chemical resistant gloves.

**Hand protection**

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

**Respiratory protection**

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.

**Thermal hazards**

Wear appropriate thermal protective clothing, when necessary.

**General hygiene considerations**

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

### 9. Physical and chemical properties

**Appearance**

<table>
<thead>
<tr>
<th>Physical state</th>
<th>Liquid.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>dark blue black.</td>
</tr>
<tr>
<td>Odor</td>
<td>Ether-like.</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**Melting point/freezing point**

Not available.

**Initial boiling point and boiling range**

370.4 °F (188 °C) estimated.

**Flash point**

114.8 °F (46.0 °C).

**Evaporation rate**

Not available.

**Flammability (solid, gas)**

Not applicable.

**Upper/lower flammability or explosive limits**

| Flammability limit - lower (%) | 0.6 % estimated  |
| Flammability limit - upper (%) | 5.8 % estimated  |
| Explosive limit - lower (%)   | Not available.   |
| Explosive limit - upper (%)   | Not available.   |

**Vapor pressure**

Not available.

**Vapor density**

Not available.

**Relative density**

Not available.

**Solubility(ies)**

Decomposes.

**Partition coefficient (n-octanol/water)**

Not available.

**Auto-ignition temperature**

Not available.

**Decomposition temperature**

Not available.

**Viscosity**

Not available.

**Other information**

| Density | 0.9 g/cm3 estimated |
| Explosive properties | Not explosive. |
Flammability class: Combustible II estimated
Flash point class: Combustible IIIA
Oxidizing properties: Not oxidizing.
Percent volatile: 69 % estimated
Specific gravity: 0.9 estimated
VOC: 69 % estimated

10. Stability and reactivity

Reactivity: The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability: Material reacts with water. Stable under recommended storage conditions.
Possibility of hazardous reactions: Hazardous polymerization does not occur. Contact with water liberates extremely flammable gases.
Conditions to avoid: Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials. Water, moisture.
Hazardous decomposition products: Reacts with water to form flammable hydrogen gas and sodium hydroxide. Carbon oxides.

11. Toxicological information

Information on likely routes of exposure

Inhalation: May cause damage to organs through prolonged or repeated exposure by inhalation. May cause irritation to the respiratory system.
Skin contact: Causes skin irritation.
Eye contact: Causes serious eye irritation.
Ingestion: Expected to be a low ingestion hazard.

Symptoms related to the physical, chemical and toxicological characteristics: Headache. Nausea. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity: Not known.

Components

<table>
<thead>
<tr>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIPHENYL (CAS 92-52-4)</td>
<td></td>
</tr>
</tbody>
</table>

**Acute**

<table>
<thead>
<tr>
<th>Dermal</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Rabbit 2500 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat &gt; 5010 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Inhalation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50</td>
<td>Mouse 0.275 mg/l, 4 Hours</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Oral</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Rabbit 2400 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Rat 3280 mg/kg</td>
</tr>
<tr>
<td></td>
<td>2400 mg/kg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>Mouse 56 mg/kg</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation: Causes skin irritation.
Serious eye damage/eye irritation: Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization: Not a respiratory sensitizer.
Skin sensitization: This product is not expected to cause skin sensitization.
Germ cell mutagenicity: No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity: Not classifiable as to carcinogenicity to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity
Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens
Not listed.

Reproductive toxicity
Suspected of damaging fertility or the unborn child.

Specific target organ toxicity
May cause respiratory irritation.

Specific target organ toxicity
- single exposure
Causes damage to organs through prolonged or repeated exposure.

Specific target organ toxicity
- repeated exposure
Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity
Very toxic to aquatic life with long lasting effects.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>ORGANIC HALOGEN REAGENT, (Sodium Biphenyl Solution)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50 Daphnia</td>
<td>5.7549 mg/l, 48 hours estimated</td>
<td></td>
</tr>
<tr>
<td>LC50 Daphnia</td>
<td>10231 mg/l, 96 Hours</td>
<td></td>
</tr>
<tr>
<td>Fish LC50 Fish</td>
<td>15385 mg/l, 96 Hours</td>
<td></td>
</tr>
<tr>
<td>Components</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIPHENYL (CAS 92-52-4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50 Water flea (Daphnia pulex)</td>
<td>1.6 mg/l, 48 hours</td>
<td></td>
</tr>
<tr>
<td>LC50 Fish Fathead minnow (Pimephales promelas)</td>
<td>1.17 - 1.81 mg/l, 96 hours</td>
<td></td>
</tr>
<tr>
<td>ETHYL DIGLYME (CAS 112-36-7)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea LC50 Harpacticoid copepod (Nitocra spinipes)</td>
<td>6000 - 7300 mg/l, 96 hours</td>
<td></td>
</tr>
<tr>
<td>Fish LC50 Bleak (Alburnus alburnus)</td>
<td>&gt; 10000 mg/l, 96 hours</td>
<td></td>
</tr>
<tr>
<td>SODIUM (CAS 7440-23-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crustacea EC50 Water flea (Daphnia magna)</td>
<td>1820 mg/l, 48 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1640 mg/l, 48 hours</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1180 - 1840 mg/l, 21 days</td>
<td></td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)

BIPHENYL 4.01
ETHYL DIGLYME 0.39

Mobility in soil
No data available.

Other adverse effects
The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations

Disposal instructions
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations
Dispose in accordance with all applicable regulations.

Hazardous waste code
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT
- **UN number**: UN2920
- **UN proper shipping name**: Corrosive liquids, flammable, n.o.s. (SODIUM BIPHENYL, ETHYL DIGLYME), MARINE POLLUTANT
- **Transport hazard class(es)**:
  - Class: 8
  - Subsidiary risk: 3
  - Label(s): 8, 3
- **Packing group**: II
- **Environmental hazards**: Yes
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Special provisions**: B2, IB2, T11, TP2, TP27
- **Packaging exceptions**: None
- **Packaging non bulk**: 202
- **Packaging bulk**: 243

IATA
- **UN number**: UN2920
- **UN proper shipping name**: Corrosive liquid, flammable, n.o.s. (SODIUM BIPHENYL, ETHYL DIGLYME)
- **Transport hazard class(es)**:
  - Class: 8
  - Subsidiary risk: 3
- **Packing group**: II
- **Environmental hazards**: No.
- **ERG Code**: 8F
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Other information**: Allowed with restrictions.
- **Passenger and cargo aircraft only**: Allowed with restrictions.

IMDG
- **UN number**: UN2920
- **UN proper shipping name**: CORROSIVE LIQUID, FLAMMABLE, N.O.S. (SODIUM BIPHENYL, ETHYL DIGLYME), MARINE POLLUTANT
- **Transport hazard class(es)**:
  - Class: 8
  - Subsidiary risk: 3
- **Packing group**: II
- **Environmental hazards**: Yes
- **EmS**: F-E, S-C
- **Special precautions for user**: Read safety instructions, SDS and emergency procedures before handling.
- **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**: Not established.
General information
IMDG Regulated Marine Pollutant. DOT Regulated Marine Pollutant.

15. Regulatory information

US federal regulations
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
ETHYL DIGLYME (CAS 112-36-7) 1.0 % One-Time Export Notification only.

CERCLA Hazardous Substance List (40 CFR 302.4)
BIPHENYL (CAS 92-52-4) Listed.
SODIUM (CAS 7440-23-5) Listed.

SARA 304 Emergency release notification
Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312
No

Hazardous chemical

SARA 313 (TRI reporting)

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>% by wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIPHENYL</td>
<td>92-52-4</td>
<td>20 - &lt; 30</td>
</tr>
</tbody>
</table>

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
BIPHENYL (CAS 92-52-4)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.

Safe Drinking Water Act (SDWA)
FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace
BIPHENYL (CAS 92-52-4) Low priority

US state regulations
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.
### International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

### 16. Other information, including date of preparation or last revision

**Issue date**
August-22-2014  

**Revision date**
May-31-2017  

**Version #**
02

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**Revision information**
This document has undergone significant changes and should be reviewed in its entirety.