SAFETY DATA SHEET

1. Identification

Product identifier
ER BAC PLUS®

Other means of identification

Synonyms
ER BAC PLUS * ER Bac® Plus * Erysipelothrix Rhusiopathiae Bacterin

Recommended use
Veterinary vaccine

Recommended restrictions
Not for human use

Manufacturer/Importer/Supplier/Distributor information

Company Name (US)
Zoetis Inc.
10 Sylvan Way
Parsippany, New Jersey 07054 (USA)

Rocky Mountain Poison and Drug Center
1-866-531-8896

Product Support/Technical Services
1-800-366-5288

Emergency telephone numbers
CHEMTREC (24 hours): 1-800-424-9300

Company Name (EU)
Zoetis Belgium S.A.
Mercuriusstraat 20
1930 Zaventem
Belgium

Emergency telephone number
International CHEMTREC (24 hours): +1-703-527-3887

Contact E-Mail
VMIPSrecords@zoetis.com

2. Hazard(s) identification

Physical hazards
Not classified.

Health hazards
Not classified.

Environmental hazards
Not classified.

OSHA defined hazards
Not classified.

Label elements

Hazard symbol
None.

Signal word
None.

Hazard statement
The mixture does not meet the criteria for classification.

Precautionary statement

Prevention
Observe good industrial hygiene practices.

Response
Wash hands after handling.

Storage
Store away from incompatible materials.

Disposal
Dispose of waste and residues in accordance with local authority requirements.

Hazard(s) not otherwise classified (HNOC)
None known.

Supplemental information
Direct contact with eyes may cause temporary irritation. In the event of accidental injection, an allergic reaction may occur. This product is an oil-adjuvanted suspension. Oil-adjuvant containing products may cause severe vasospasm following accidental injection.

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>Water, purified</td>
<td></td>
<td>7732-18-5</td>
<td>90</td>
</tr>
</tbody>
</table>
### Composition comments

* Non-hazardous Ingredients

In accordance with 29 CFR 1910.1200, the exact percentage composition of this mixture has been withheld as a trade secret.

### 4. First-aid measures

#### Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

#### Skin contact

In the case of skin contact, immediately wash the skin with plenty of soap and water. In the event of accidental self injection or needle stick injury, wash the injury thoroughly with clean running water. Get medical attention immediately.

#### Eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses, if present and easy to do.

#### Ingestion

Rinse mouth. Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

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

Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. In the event of accidental injection, an allergic reaction may occur. Signs and symptoms might include skin rash, itching, redness or swelling. Respiratory reactions may be characterized by rhinitis, sneezing, scratchy throat, oral mucosal edema, laryngeal mucosal edema, coughing, shortness of breath, wheezing, and chest pain. Asthma like reactions occur with acute exposures in sensitized patients.

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

Treat symptomatically. Where parenteral oil-adjuvanted vaccine exposure has occurred, the patient should be promptly evaluated for the development of vasospasm and/or compartment syndrome.

#### General information

For personal protection, see section 8 of the SDS. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

### 5. Fire-fighting measures

#### Suitable extinguishing media

Water fog. 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

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

Use water spray to cool unopened containers.

#### Specific methods

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

#### General fire hazards

No unusual fire or explosion hazards noted.

### 6. Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. For personal protection, see section 8 of the SDS.

#### Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

#### Environmental precautions

Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage

**Precautions for safe handling**
Avoid contact with eyes, skin, and clothing. Avoid breathing mist or vapor. Avoid accidental injection. Wash thoroughly after handling. When using, do not eat, drink or smoke. Wear personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

**Conditions for safe storage, including any incompatibilities**
Store away from direct sunlight. @ 2 - 7˚C (36 - 45 ˚F). Do not freeze. Store in original tightly closed container. Keep away from heat, sparks and open flame. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

**Occupational exposure limits**


<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde (CAS 50-00-0)</td>
<td>STEL</td>
<td>2 ppm</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.75 ppm</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5)</td>
<td>PEL</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.01 mg/m3</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-2 (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merthiolate (as mercury) (CAS 54-64-8)</td>
<td>Ceiling</td>
<td>0.04 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.01 mg/m3</td>
</tr>
</tbody>
</table>

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum hydroxide gel (CAS 21645-51-2)</td>
<td>TWA</td>
<td>5 mg/m3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3 Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 mppcf Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mppcf Respirable fraction.</td>
</tr>
</tbody>
</table>

**US. ACGIH Threshold Limit Values**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aluminum hydroxide gel (CAS 21645-51-2)</td>
<td>TWA</td>
<td>1 mg/m3 Respirable fraction.</td>
</tr>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5)</td>
<td>TWA</td>
<td>5 mg/m3 Inhalable fraction.</td>
</tr>
<tr>
<td>Formaldehyde (CAS 50-00-0)</td>
<td>Ceiling</td>
<td>0.3 ppm</td>
</tr>
<tr>
<td>Merthiolate (as mercury) (CAS 54-64-8)</td>
<td>STEL</td>
<td>0.03 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.01 mg/m3</td>
</tr>
</tbody>
</table>

**US. NIOSH: Pocket Guide to Chemical Hazards**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5)</td>
<td>STEL</td>
<td>10 mg/m3 Mist.</td>
</tr>
<tr>
<td>Formaldehyde (CAS 50-00-0)</td>
<td>TWA</td>
<td>5 mg/m3 Mist.</td>
</tr>
<tr>
<td></td>
<td>Ceiling</td>
<td>0.1 ppm</td>
</tr>
<tr>
<td>Merthiolate (as mercury) (CAS 54-64-8)</td>
<td>TWA</td>
<td>0.016 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL</td>
<td>0.03 mg/m3</td>
</tr>
<tr>
<td></td>
<td>TWA</td>
<td>0.01 mg/m3</td>
</tr>
</tbody>
</table>

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

**Exposure guidelines**

**US - California OELs: Skin designation**

Merthiolate (as mercury) (CAS 54-64-8) Can be absorbed through the skin.
US - Tennessee OELs: Skin designation
Merthiolate (as mercury) (CAS 54-64-8) Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation
Merthiolate (as mercury) (CAS 54-64-8) Can be absorbed through the skin.

US NIOSH Pocket Guide to Chemical Hazards: Skin designation
Merthiolate (as mercury) (CAS 54-64-8) Can be absorbed through the skin.

Control banding approach Not available.

Appropriate engineering controls
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 to an acceptable level. Keep air contamination levels below the exposure limits or within the OEB range listed above in this section. General ventilation normally adequate.

Individual protection measures, such as personal protective equipment

Eye/face protection
If contact is likely, safety glasses with side shields are recommended.

Skin protection

Hand protection
Wear impervious gloves if skin contact is possible.

Other
Wear suitable protective clothing. Use protective clothing (uniforms, lab coats, disposable coveralls, etc.) in both production and laboratory areas.

Respiratory protection
No personal respiratory protective equipment normally required. In case of insufficient ventilation, wear suitable respiratory equipment. 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.

Thermal hazards
Not applicable.

General hygiene considerations
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

Physical state Liquid.
Form Liquid.
Color Cloudy white

Odor
Not available.

Odor threshold
Not available.

pH
6 - 8

Melting point/freezing point
Not available.

Initial boiling point and boiling range
> 212 °F (> 100 °C)

Flash point Non-flammable

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
Not available.

Vapor density
Not available.

Relative density
Not available.

Solubility(ies)

Solubility (water)
Not available.
Partition coefficient (n-octanol/water) Not available.
Auto-ignition temperature Not available.
Decomposition temperature Not available.
Viscosity Not available.
Other information
   Explosive properties Not explosive.
   Oxidizing properties Not oxidizing.
   Specific gravity 0.99

10. Stability and reactivity
Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Contact with incompatible materials. Sunlight. High temperatures. Store at 2-7°C. Prolonged exposure to higher temperatures may adversely affect potency. Do not freeze.
Incompatible materials Strong oxidizing agents. This material can be denatured or inactivated by a variety of organic solvents, salts or heavy metals.
Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information
Information on likely routes of exposure
Inhalation No adverse effects due to inhalation are expected.
Skin contact Prolonged skin contact may cause temporary irritation.
  Formaldehyde Species: Rabbit Severity: Moderate to Severe
  Amphigen (Mineral oil / Soy lecithin) Species: Rabbit Severity: Non-irritating
Eye contact Direct contact with eyes may cause temporary irritation.
  Merthiolate (as mercury) Species: Rabbit Severity: Mild
  Amphigen (Mineral oil / Soy lecithin) Species: Rabbit Severity: Non-irritating
  Formaldehyde Species: Rabbit Severity: Severe
Ingestion Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation. Exposure may cause temporary irritation, redness, or discomfort. In the event of accidental injection, an allergic reaction may occur. Signs and symptoms might include skin rash, itching, redness or swelling. Respiratory reactions may be characterized by rhinitis, sneezing, scratchy throat, oral mucosal edema, laryngeal mucosal edema, coughing, shortness of breath, wheezing, and chest pain. Asthma like reactions occur with acute exposures in sensitized patients.
Information on toxicological effects
Acute toxicity Expected to be a low hazard for usual industrial or commercial handling by trained personnel.
Components Species Test Results
Aluminum hydroxide gel (CAS 21645-51-2)
  Acute
  Other
  LD50 Rat 150 mg/kg
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral NOAEL</td>
<td>Rat</td>
<td>1800 mg/kg/day, 90 days Liver</td>
</tr>
<tr>
<td>Formaldehyde (CAS 50-00-0)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal LD50</td>
<td>Rabbit</td>
<td>270 mg/kg</td>
</tr>
<tr>
<td>Inhalation LC50</td>
<td>Mouse</td>
<td>0.414 mg/L, 4 hours</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>0.48 mg/L, 4 hours</td>
</tr>
<tr>
<td><strong>Oral</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td><strong>Chronic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation LOAEL</td>
<td>Mouse</td>
<td>15 ppm, 2 years Tumors</td>
</tr>
<tr>
<td></td>
<td>Rat</td>
<td>15 ppm, 90 days Respiratory system</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 ppm, 2 years Tumors</td>
</tr>
<tr>
<td>Merthiolate (as mercury) (CAS 54-64-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Acute</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oral LD50</td>
<td>Rat</td>
<td>75 mg/kg</td>
</tr>
<tr>
<td>Subcutaneous LD50</td>
<td>Rat</td>
<td>98 mg/kg</td>
</tr>
<tr>
<td><strong>Skin corrosion/irritation</strong></td>
<td></td>
<td>Prolonged skin contact may cause temporary irritation.</td>
</tr>
<tr>
<td><strong>Serious eye damage/eye irritation</strong></td>
<td></td>
<td>Direct contact with eyes may cause temporary irritation.</td>
</tr>
<tr>
<td><strong>Eye Contact</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merthiolate (as mercury)</td>
<td>Species: Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity: Mild</td>
<td></td>
</tr>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin)</td>
<td>Species: Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity: Non-irritating</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Species: Rabbit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity: Severe</td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory or skin sensitization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>ACGIH sensitization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FORMALDEHYDE (CAS 50-00-0)</td>
<td>Dermal sensitization</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Respiratory sensitization</td>
<td></td>
</tr>
<tr>
<td><strong>Respiratory sensitization</strong></td>
<td>Not a respiratory sensitizer.</td>
<td></td>
</tr>
<tr>
<td><strong>Skin sensitization</strong></td>
<td>This product contains formaldehyde and merthiolate which are considered to be skin sensitizers.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>This product is not expected to cause skin sensitization.</td>
<td></td>
</tr>
<tr>
<td><strong>Skin sensitization</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin)</td>
<td>Species: Guinea Pig</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity: Negative</td>
<td></td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>Species: Guinea Pig</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Severity: Positive</td>
<td></td>
</tr>
</tbody>
</table>
### Mutagenicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>Test Type</th>
<th>Result</th>
<th>Species</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin)</td>
<td>In Vitro Bacterial Mutagenicity (Ames)</td>
<td>Negative</td>
<td>Salmonella</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>In Vitro Bacterial Mutagenicity (Ames)</td>
<td>Positive</td>
<td>Bacteria</td>
</tr>
<tr>
<td></td>
<td>In Vitro Chromosome Aberration</td>
<td>Positive</td>
<td>Rodent</td>
</tr>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin)</td>
<td>In Vitro Mammalian Cell Mutagenicity</td>
<td>Negative</td>
<td>Mouse Lymphoma</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>In Vitro Sister Chromatid Exchange</td>
<td>Positive</td>
<td>Rodent</td>
</tr>
<tr>
<td></td>
<td>In Vivo Chromosome Aberration</td>
<td>Positive</td>
<td>Not specified</td>
</tr>
</tbody>
</table>

### Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

### Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. No known carcinogens are present at greater than 0.1%.

#### IARC Monographs. Overall Evaluation of Carcinogenicity

- Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5) - Not classifiable as to carcinogenicity to humans.
- Formaldehyde (CAS 50-00-0) - Carcinogenic to humans.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

- Formaldehyde (CAS 50-00-0) - Cancer

#### US. National Toxicology Program (NTP) Report on Carcinogens

- Formaldehyde (CAS 50-00-0) - Known To Be Human Carcinogen.

### Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

#### Developmental effects

<table>
<thead>
<tr>
<th>Substance</th>
<th>Route of Exposure</th>
<th>Effect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formaldehyde</td>
<td>Oral</td>
<td>185 mg/kg/day Embryo / Fetal Development, Not teratogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal toxicity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Species: Mouse</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organ: Oral</td>
</tr>
<tr>
<td></td>
<td>Inhalation</td>
<td>40 ppm Embryo / Fetal Development, Not Teratogenic</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Maternal Toxidity</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Species: Rat</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Organ: Inhalation</td>
</tr>
</tbody>
</table>

### Specific target organ toxicity

- **Single exposure:** Not classified.
- **Repeated exposure:** Not classified.

### Aspiration hazard

Not an aspiration hazard.

### Further information

Allergic reactions are possible. The antigens included in this product are non-infectious. All have been prepared from killed or inactivated preparations of microorganisms. This product is an oil-adjuvanted suspension. Oil-adjuvant containing products may cause severe vasospasm following accidental injection.

### Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment. Avoid release to the environment.

---

**Material name:** ER BAC PLUS®

**SDS US**

**Version #: 01**  **Issue date: 04-06-2017**
<table>
<thead>
<tr>
<th>Components Test Results</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amphigen (Mineral oil / Soy lecithin) (CAS 8042-47-5)</td>
<td>LC50</td>
<td>Lepomis macrochirus (Bluegill Sunfish)</td>
</tr>
<tr>
<td>Formaldehyde (CAS 50-00-0)</td>
<td>EC50</td>
<td>Daphnia magna (Water Flea)</td>
</tr>
<tr>
<td></td>
<td>LC50</td>
<td>Oncorhynchus mykiss (Rainbow Trout)</td>
</tr>
<tr>
<td>Aquatic</td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
<tr>
<td>Persistence and degradability</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobility in soil</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other adverse effects</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

13. Disposal considerations

Disposal instructions
Avoid release to the environment. Do not discharge into drains, water courses or onto the ground. Do not contaminate ponds, waterways or ditches with chemical or used container. Considering the relevant known environmental and human health hazards of the material, review and implement appropriate technical and procedural waste water and waste disposal measures to prevent occupational exposure and environmental release. It is recommended that waste minimization be practiced. The best available technology should be utilized to prevent environmental releases. This may include destructive techniques for waste and wastewater. This product contains trace quantities of mercury and may qualify as a RCRA Hazardous Waste. Status should be confirmed using the EPA Toxicity Characteristic Leaching Procedure (TCLP). 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
None known. This product contains trace quantities of mercury, releases to the environment should be avoided.

Waste from residues / unused products
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.

14. Transport information

DOT
Not regulated as dangerous goods.

IATA
Not regulated as dangerous goods.

IMDG
Not regulated as dangerous goods.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not established.

15. Regulatory information

US federal regulations
This product is not known to be 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)
Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)
Formaldehyde (CAS 50-00-0) Listed.

SARA 304 Emergency release notification
Formaldehyde (CAS 50-00-0) 100 LBS

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Formaldehyde (CAS 50-00-0) Cancer
Skin sensitization
Respiratory sensitization
Eye irritation
Skin irritation
respiratory tract irritation
Acute toxicity
Flammability

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

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

**SARA 302 Extremely hazardous substance**

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>Reportable quantity (pounds)</th>
<th>Threshold planning quantity (pounds)</th>
<th>Threshold planning quantity, lower value (pounds)</th>
<th>Threshold planning quantity, upper value (pounds)</th>
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<tbody>
<tr>
<td>Formaldehyde</td>
<td>50-00-0</td>
<td>100</td>
<td>500</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SARA 311/312 Hazardous chemical**

**SARA 313 (TRI reporting)**

Not regulated.

**Other federal regulations**

**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**
- Formaldehyde (CAS 50-00-0)
- Merthiolate (as mercury) (CAS 54-64-8)

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**
- Formaldehyde (CAS 50-00-0)

**Safe Drinking Water Act (SDWA)**

Not regulated.

**US state regulations**

WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

**US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**
- Formaldehyde (CAS 50-00-0) Listed: January 1, 1988

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**
- Merthiolate (as mercury) (CAS 54-64-8) Listed: July 1, 1990

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**
- Formaldehyde (CAS 50-00-0)

**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>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>No</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
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<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
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</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>No</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) and are listed on the inventory 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).*
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This document has undergone significant changes and should be reviewed in its entirety.