SAFETY DATA SHEET

1. Identification

Product identifier Bayluscide 3.2% Granular Sea Lamprey Larvicide; Bayluscide Granular Sea Lamprey Larvicide.

Other means of identification Not available.

Synonyms Niclosamide ethanolamine salt mixture; clonitralide mixture

Recommended use Industrial use.

Recommended restrictions None known.

Manufacturer / Importer / Supplier / Distributor information

Manufacturer Coating Place, Inc.
Address 200 Paoli Street Verona, WI 53593
Telephone number 608-845-9521

Supplier U.S. Fish and Wildlife Service
Address 1849 C Street NW Washington, D.C. 20240

Emergency telephone number Chemtrec (U.S.) 1-800-424-9300
Supplier Department of Fisheries and Oceans Canada - Sea Lamprey Control Centre
Address 1219 Queen Street Sault Ste. Marie Ontario, Canada P6A 2E5
Emergency telephone number Canutec (Canada) 1-613-996-6666

2. Hazard(s) identification

Physical hazards Not classified.
Health 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.

3. Composition/information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide</td>
<td>7631-86-9</td>
<td>68-72</td>
</tr>
<tr>
<td>Polyoxymethylene-poly oxpropylpoly oxide block copolymer</td>
<td>9003-11-6</td>
<td>18-20</td>
</tr>
<tr>
<td>Ethyl cellulose</td>
<td>9004-57-3</td>
<td>4</td>
</tr>
<tr>
<td>Niclosamide ethanolamine salt</td>
<td>1420-04-8</td>
<td>3-3.6</td>
</tr>
<tr>
<td>Hydroxypropyl cellulose salt</td>
<td>9004-64-2</td>
<td>2</td>
</tr>
</tbody>
</table>

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
4. First-aid measures

Inhalation
Remove victim to fresh air. Get medical attention if symptoms persist.

Skin contact
Remove contaminated clothing and shoes. Wash the skin immediately with soap and water. Get medical attention if irritation develops and persists.

Eye contact
Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation develops and persists.

Ingestion
Never give anything by mouth to a victim who is unconscious or is having convulsions. Immediately rinse mouth and drink plenty of water or milk. Keep person under observation. Do not induce vomiting. If vomiting occurs, keep head low. Seek immediate medical attention or advice.

Most important symptoms/effects, acute and delayed
Irritation of eyes and mucous membranes. Irritation of nose and throat. Cough. Skin irritation.

Indication of immediate medical attention and special treatment needed
Treat symptomatically.

General information
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media
Dry chemical powder, water spray.

Unsuitable extinguishing media
None known.

Specific hazards arising from the chemical
The product is not flammable. By heating and fire, toxic vapors/gases 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. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace.

Fire-fighting equipment/instructions
Move containers from fire area if you can do so without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures
Avoid inhalation of dust and contact with skin and eyes. Use personal protection as recommended in Section 8 of the SDS.

Methods and materials for containment and cleaning up
Cover with plastic sheet to prevent spreading. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Following product recovery, flush area with water. Ventilate the area. Clean up in accordance with all applicable regulations.

Environmental precautions
Avoid discharge into drains, water courses or onto the ground unless authorized by permit.

7. Handling and storage

Precautions for safe handling
Avoid inhalation of dust and contact with skin and eyes. Wash at the end of each work shift and before eating, smoking and using the toilet. Change contaminated clothing. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Keep upright. Store in tightly closed original container in a dry, cool and well-ventilated place. Protect from direct sunlight. Store away from incompatible materials. Do not reuse containers.

8. Exposure controls/personal protection

Occupational exposure limits
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>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niclosamide ethanolamine salt (CAS 1420-04-8)</td>
<td>PEL</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</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>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niclosamide ethanolamine salt (CAS 1420-04-8)</td>
<td>TWA</td>
<td>5 mg/m3</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>15 mg/m3</td>
<td>Total dust.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>50 millions of particle</td>
<td>Total dust.</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>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>TWA</td>
<td>15 millions of particle</td>
<td>Respirable fraction.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.8 mg/m³</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>20 mppcf</td>
<td></td>
</tr>
</tbody>
</table>

US. ACGIH Threshold Limit Values

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niclosamide ethanolamine salt (CAS 1420-04-8)</td>
<td>TWA</td>
<td>3 mg/m³</td>
<td>Respirable particles.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10 mg/m³</td>
<td>Inhalable particles.</td>
</tr>
</tbody>
</table>

US NIOSH Pocket Guide to Chemical Hazards: Recommended exposure limit (REL)

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silicon dioxide (CAS 7631-86-9)</td>
<td>TWA</td>
<td>6 mg/m³</td>
</tr>
</tbody>
</table>

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Use personal protective equipment as required. Keep working clothes separately. No exposure standards allocated.

Appropriate engineering controls

Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields.

Skin protection

Hand protection

Wear protective gloves.

Other

Normal work clothing (long sleeved shirts and long pants) is recommended.

Respiratory protection

Use a NIOSH–approved respirator if there is a potential for exposure to dust exceeding exposure limits (See 29 CRF 1910.134, respiratory protection standard). Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.

Thermal hazards

Not applicable.

General hygiene considerations

Wash hands before breaks and immediately after handling the product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Dark yellow. Granules.

Physical state

Solid.

Form

Granules.

Color

Dark yellow.

Odor

Cresol-like.

Odor threshold

Not available.

pH

9.05 (1% aqueous solution at 78.8°F/26°C)

Melting point/freezing point

Not available.

Initial boiling point and boiling range

Not available.

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not available.

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  6.9 x 10^-13 mm Hg at 68°F/20°C
Vapor density  Not available.
Relative density  Not available.
Solubility(ies)  Completely Soluble (100%) 11 ppm at pH 8.9 (for Niclosamide).
Partition coefficient (n-octanol/water)  Not available.
Auto-ignition temperature  Not available.
 Decomposition temperature  Not available.
Viscosity  Not applicable.

Other information

Bulk density  1.26 g/ml

10. Stability and reactivity

Reactivity  Stable at normal conditions. None known.
Chemical stability  Stable at normal conditions.
Possibility of hazardous reactions  Hazardous polymerization does not occur.
Conditions to avoid  Heat.


11. Toxicological information

Information on likely routes of exposure

Ingestion  May cause discomfort if swallowed.
Inhalation  Inhalation of dusts may cause respiratory irritation.
Skin contact  May cause skin irritation.
Eye contact  May cause eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Irritation of eyes and mucous membranes. Irritation of nose and throat. Cough. Skin irritation.

Information on toxicological effects

Acute toxicity  Ingestion may cause irritation and malaise.

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hydroxypropyl cellulose salt (CAS 9004-64-2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>10200 mg/kg</td>
</tr>
<tr>
<td>Niclosamide ethanolamine salt (CAS 1420-04-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>Polyoxyethylene-polyoxypropylene block copolymer (CAS 9003-11-6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td>Oral</td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation  Not classified.
Serious eye damage/eye irritation  Not classified.
Respiratory sensitization  No data available.
Skin sensitization  Not a skin sensitizer.
Germ cell mutagenicity  Niclosamide ethanolamine salt: Ames test: Negative.
Carcinogenicity
Not classifiable as to carcinogenicity to humans.

IARC Monographs. Overall Evaluation of Carcinogenicity
Silicon dioxide (CAS 7631-86-9) 3 Not classifiable as to carcinogenicity to humans.

Reproductive toxicity
Knowledge about reproductive effects is incomplete.

Specific target organ toxicity - single exposure
No data available.

Specific target organ toxicity - repeated exposure
No data available.

Aspiration hazard
Not classified.

Chronic effects
Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

12. Ecological information

Ecotoxicity
Toxic to aquatic life.

Components | Species | Test Results
--- | --- | ---
Niclosamide ethanolamine salt (CAS 1420-04-8) | Aquatic | EC50 Water flea (Daphnia magna) 0.14 - 0.27 mg/l, 48 hours
LC50 Daphnia 0.38 mg/l, (70% niclosamide ethanolamine salt mixture)
Fish | Channel catfish (Ictalurus punctatus) 0.035 - 0.051 mg/l, 96 hours
Rainbow Trout 0.34 mg/l, 96 Hours, (70% niclosamide ethanolamine salt mixture)
Polyoxyethylene-polyoxypropylene block copolymer (CAS 9003-11-6) | Aquatic | EC50 Crustacea > 100 mg/l, 48 hours
Invertebrates (Invertebrates) 10 mg/l, 48 hours
LC50 Fish > 100 mg/l, 96 hours
Fish 0.34 mg/l, 96 Hours, (70% niclosamide ethanolamine salt mixture)

Persistence and degradability
No data is available on the degradability of this product.

Bioaccumulative potential
Has moderate potential to bioaccumulate. BCF: 46

Mobility in soil

Other adverse effects
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

13. Disposal considerations

Disposal instructions
This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazardous waste code
Not regulated.

Waste from residues / unused products
Dispose in accordance with all applicable regulations.

Contaminated packaging
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport information

DOT
Not regulated as a hazardous material by DOT.

IATA
Not regulated as a dangerous good.

IMDG
Not regulated as a dangerous good.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
This substance/mixture is not intended to be transported in bulk.

15. Regulatory information

US federal regulations
This product is not hazardous according to OSHA 29CFR 1910.1200. This material is not listed on the US TSCA 8(b) Inventory, and is exempt because it is FIFRA regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)
Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)
Not listed.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

<table>
<thead>
<tr>
<th>Hazard categories</th>
<th>Immediate Hazard - No</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Delayed Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Fire Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Pressure Hazard - No</td>
</tr>
<tr>
<td></td>
<td>Reactivity Hazard - No</td>
</tr>
</tbody>
</table>

SARA 302 Extremely hazardous substance
No

SARA 311/312 Hazardous chemical
No

SARA 313 (TRI reporting)
Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.

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

Safe Drinking Water Act (SDWA)
Not regulated.

Food and Drug Administration (FDA)
Not regulated.

US state regulations
This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US. Massachusetts RTK - Substance List
Niclosamide ethanolamine salt (CAS 1420-04-8)
Silicon dioxide (CAS 7631-86-9)

US. New Jersey Worker and Community Right-to-Know Act
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
Niclosamide ethanolamine salt (CAS 1420-04-8)
Silicon dioxide (CAS 7631-86-9)

US. Rhode Island RTK
Not regulated.

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance
Not listed.

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>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>No</td>
</tr>
</tbody>
</table>

*A "Yes" indicates this product complies 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
04-November-2013

Revision date
-

Version #
01

NFPA Ratings

![NFPA Ratings](image-url)
References

EPA: AQUIRE database
NLM: Hazardous Substances Data Base
US. IARC Monographs on Occupational Exposures to Chemical Agents
HSDB® - Hazardous Substances Data Bank
IARC Monographs. Overall Evaluation of Carcinogenicity
National Toxicology Program (NTP) Report on Carcinogens
ACGIH Documentation of the Threshold Limit Values and Biological Exposure Indices

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.