SAFETY DATA SHEET

1. Identification

Product identifier Aramite

Other means of identification

Item N-11085
CAS number 140-57-8
Synonyms 2-(P-TERT-BUTYLPHENOXY)ISOPROPYL 2-CHLOROETHYL SULFITE

Recommended use Not available.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Chem Service, Inc.
Address 660 Tower Lane
West Chester, PA 19380
United States
Telephone Toll Free 800-452-9994
Direct 610-692-3026
Website www.chemservice.com
E-mail info@chemservice.com
Emergency phone number Chemtrec US 800-424-9300
Chemtrec outside US +1 703-527-3887

2. Hazard(s) identification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2
Serious eye damage/eye irritation Category 2
Carcinogenicity Category 1B

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 Causes skin irritation. Causes serious eye irritation. May cause cancer. 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. Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Response If on skin: Wash with plenty of water. 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. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage Store locked up.

Disposal Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC) None known.

Supplemental information 100% of the mixture consists of component(s) of unknown acute dermal toxicity. 100% of the mixture consists of component(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Substances

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aramite</td>
<td>2-(P-TERT-BUTYLPHENOX)ISOPROPYL 2-CHLOROETHYL SULFITE</td>
<td>140-57-8</td>
<td>100</td>
</tr>
</tbody>
</table>

4. First-aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact Remove contaminated clothing. Wash with plenty of soap and water. 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

Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.
Special 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: 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: No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. 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: 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. 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. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.
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. Avoid contact with eyes, skin, and clothing. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Refrigerator Storage (2 - 8 °C)

8. Exposure controls/personal protection

Occupational exposure limits
This substance has no PEL, TLV, or other recommended exposure limit.

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

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. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

Eye/face protection
Chemical respirator with organic vapor cartridge and full facepiece.

Skin protection

Hand protection
Wear appropriate chemical resistant gloves.

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

Respiratory protection
Chemical respirator with organic vapor cartridge and full facepiece.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Observe any medical surveillance requirements. 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
Not available.

Odor
Not available.

Odor threshold
Not available.

pH
Not available.

Melting point/freezing point
-25.06 °F (-31.7 °C)

Initial boiling point and boiling range
347 °F (175 °C) 0.013332 kPa

Flash point
Not available.

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
0.0000005 kPa (77 °F (25 °C))

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
- Density: 1.145 g/ml
- Explosive properties: Not explosive.
- Molecular formula: C15-H23-Cl-O4-S
- Molecular weight: 334.87 g/mol
- Oxidizing properties: Not oxidizing.
- Specific gravity: 1.15 at 20 °C

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: Hazardous polymerization does not occur.
- Conditions to avoid: Contact with incompatible materials.
- Incompatible materials: Strong oxidizing agents.
- 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: 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
- Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects
- Acute toxicity: Not known.
- 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
- IARC Monographs. Overall Evaluation of Carcinogenicity
  - Aramite (CAS 140-57-8): 2B Possibly carcinogenic to humans.
  - Not regulated.
- US. National Toxicology Program (NTP) Report on Carcinogens
  - Not listed.

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

Specific target organ toxicity - single exposure
- Not classified.

Specific target organ toxicity - repeated exposure
- Not classified.
Aspiration hazard
Not an aspiration hazard.

Chronic effects
Prolonged exposure may cause chronic effects.

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>Aramite (CAS 140-57-8)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aquatic</td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td></td>
<td>Water flea (Daphnia pulex)</td>
<td>0.11 - 0.22 mg/l, 48 hours</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
<tr>
<td></td>
<td>Rainbow trout, donaldson trout</td>
<td>0.265 - 0.387 mg/l, 96 hours</td>
</tr>
<tr>
<td></td>
<td>(Oncorhyncus mykiss)</td>
<td></td>
</tr>
</tbody>
</table>

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

Persistence and degradability
No data available.

Bioaccumulative potential
No data available.

Mobility in soil
No data available.

Other adverse effects
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

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.

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. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number: UN3082
UN proper shipping name: Environmentally hazardous substances, liquid, n.o.s. (Aramite), MARINE POLLUTANT
Transport hazard class(es)
Class: 9
Subsidiary risk: -
Label(s): 9
Packing group: III
Environmental hazards: Yes
Special precautions for user
Read safety instructions, SDS and emergency procedures before handling.
Special provisions
8, 146, 335, IB3, T4, TP1, TP29
Packaging exceptions: 155
Packaging non bulk: 203
Packaging bulk: 241

IATA

UN number: UN3082
UN proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Aramite)
Transport hazard class(es)
Class: 9
Subsidiary risk: -
Packing group: III
Environmental hazards: Yes
ERG Code: 9L
Special precautions for user: Read safety instructions, SDS and emergency procedures before handling.

Other information:
- Passenger and cargo aircraft: Allowed with restrictions.
- Cargo aircraft only: Allowed with restrictions.

IMDG:
- UN number: UN3082
- UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Aramite), MARINE POLLUTANT

Transport hazard class(es):
- Class: 9
- Subsidiary risk: -
- Packing group: III
- Environmental hazards: Marine pollutant, Yes
- EmS: F-A, S-F

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

DOT; IATA; IMDG

Marine pollutant

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.
- SARA 304 Emergency release notification: Not regulated.
Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance
Not listed.

SARA 311/312 Hazardous chemical
Yes

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.

US state regulations
WARNING: This product contains a chemical known to the State of California to cause cancer.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance
- Aramite (CAS 140-57-8) Listed: July 1, 1987

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>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</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>No</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>No</td>
</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).
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: 06-11-2014
Revision date: 07-23-2020
Version #: 02
NFPA ratings
- Health: 2
- Flammability: 0
- Instability: 0
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Revision information
This document has undergone significant changes and should be reviewed in its entirety.