

MATERIAL SAFETY DATA SHEET

MSDS DATE: 09/02/06

FILE NO.: ALX-400-036

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Peroxynitrite . tetramethylammonium
SYNONYMS: ONOO⁻ . C₄H₁₂N; Oxoperoxonitrate(1-) . C₄H₁₂N
PRODUCT CODES: ALX-400-036
MANUFACTURER: ALEXIS Corporation
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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>Formula:</u>	<u>CAS #</u>	<u>EC #</u>	<u>Annex I Index #</u>
NO ₃ . C ₄ H ₁₂ N	14042-01-4	N/A	N/A

SECTION 3: HAZARDS IDENTIFICATION

ACUTE HEALTH EFFECTS: **CORROSIVE. OXIDIZING. Causes burns by inhalation, ingestion, or skin absorption. Contact with combustible material may cause fire.**

SECTION 4: FIRST AID MEASURES

EYES: Rinse immediately with plenty of water for 15 minutes. Check for and remove any contact lenses. Seek medical attention if symptoms appear.
SKIN: Wash immediately with water for 15 minutes. Remove contaminated clothing. Seek medical attention if symptoms appear.
INGESTION: Rinse mouth with water. Do not induce vomiting. Seek medical attention if symptoms appear. Provide MSDS and label information if possible.
INHALATION: Take into fresh air. If breathing is difficult, administer oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA: Use flooding quantities of water. Avoid contact with organic materials.
SPECIAL FIRE FIGHTING PROCEDURES: In case of fire, watch out for the formation of toxic smoke and gases. Wear self-contained respiration equipment. Prevent contact with skin and eyes.
UNUSUAL FIRE AND EXPLOSION HAZARDS: May be combustible at high temperatures.
HAZARDOUS DECOMPOSITION PRODUCTS: N/A

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Evacuate area. Wear respirator, chemical safety goggles, rubber boots and heavy rubber gloves.
ACCIDENTAL RELEASE MEASURES: Avoid formation of dust, sweep up spill and place in sealed container and hold for disposal. Ventilate area and wash spill site after material pickup is complete.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Keep locked up. Keep away from heat, sources of ignition and incompatibles such as oxidizing agents. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Avoid contact with skin and eyes; do not breathe dust. Avoid prolonged or repeated exposure. Immediately remove all contaminated clothing. Wash hands before breaks and after work. Avoid eating, drinking and storage of food in the work room. Store tightly sealed at -80°C. Protect from light.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use only in chemical fume hood. Safety shower and eye bath.
VENTILATION: Government approved respirator.
EYE PROTECTION: Chemical safety goggles.
SKIN PROTECTION: Compatible gloves, protective coat or clothing.
SECTION 8 NOTES: Wash thoroughly after handling. Wash contaminated clothing before reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: N/A
ODOR: N/A
PHYSICAL STATE: Liquid.
pH AS SUPPLIED: N/A
BOILING POINT: N/A
MELTING POINT: N/A
FREEZING POINT: N/A
VAPOR PRESSURE (mmHg): N/A
VAPOR DENSITY (AIR = 1): N/A
SPECIFIC GRAVITY (H₂O = 1): N/A
EVAPORATION RATE: N/A
BASIS (=1): N/A
SOLUBILITY: N/A
MOLECULAR WEIGHT: 62.0 . 74.1

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable. Avoid strong oxidizing agents.
HAZARDOUS DECOMPOSITION: Carbon monoxide, carbon dioxide, nitrogen oxides.
HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

RTECS # : N/A

TOXICOLOGICAL INFORMATION: Contact with skin can cause irritation or severe burns and scarring with greater exposures. Causes irritation of eyes, and with greater exposures it can cause burns that may result in permanent impairment of vision, even blindness. Harmful if swallowed, inhaled, or absorbed through the skin. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Swallowing may cause severe burns to mouth, throat, and stomach. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

LD50: Not available.

CHRONIC EXPOSURE: Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

CHRONIC EXPOSURE-CARCINOGEN: Not available.

CHRONIC EXPOSURE-MUTAGEN: Not available.

CHRONIC EXPOSURE-TERATOGEN: Not available.

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SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: N/A

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: N/A

SECTION 14: TRANSPORT INFORMATION

INTERNATIONAL TRANSPORT REGULATIONS:

LAND – ROAD/RAILWAY: ADR/RID: Not available.
SEA: IMDG: Not available.
AIR: IATA-DGR: Not available.
SPECIAL PROVISIONS FOR TRANSPORT: N/A

SECTION 15: REGULATORY INFORMATION

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES:

SYMBOL OF DANGER: C, corrosive; O, oxidizing
R-PHRASES: R8 - Contact with combustible material may cause fire.
R20/22 - Harmful by inhalation and if swallowed.
R34 - Causes burns.
S-PHRASES: S3 - Keep in a cool place.
S28.1 - After contact with skin, wash immediately with plenty of water.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
U.S. FEDERAL REGULATIONS: Not classified.
HCS CLASSIFICATION: CLASS: Oxidizer.
CLASS: Target organ effects.
CLASS: Corrosive material
WHMIS (CANADA): CLASS C: Oxidizing material.
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
CLASS E: Corrosive liquid.

SECTION 16: OTHER INFORMATION

DISCLAIMER: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Alexis Corporation shall not be held liable for any damage resulting from handling or from contact with the above product.

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