

Common Name: **SODIUM CHLORATE**

Synonyms: Atlacide; Chlorate of Soda; Oxycil

CAS No: 7775-09-9

Molecular Formula: NaClO₃

RTK Substance No: 1688

Description: Odorless, pale yellow to white, crystalline solid

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
<p>2 - Health</p> <p>0 - Fire</p> <p>0 - Reactivity</p> <p>DOT#: UN 1495 UN 2428 (solution)</p> <p>ERG Guide #: 140</p> <p>Hazard Class: 5.1 (Oxidizer)</p>	<p>Sodium Chlorate is not combustible, but it is a STRONG OXIDIZER that enhances the combustion of other substances.</p> <p>Flood with water.</p> <p>POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Chlorides</i> and <i>Sodium Oxides</i>.</p> <p>Use water spray to keep fire-exposed containers cool.</p> <p>Sodium Chlorate may ignite combustibles (wood, paper and oil).</p>	<p>Sodium Chlorate reacts with ARSENIC TRIOXIDE; STRONG ACIDS (such as HYDROCHLORIC, SULFURIC and NITRIC); REDUCING AGENTS (such as LITHIUM, SODIUM, ALUMINUM and their HYDRIDES); ORGANIC MATERIALS (such as PEAT, SUGAR and WOOD); COMBUSTIBLES; and FINELY POWDERED METALS (such as ALUMINUM) to cause fires and explosions.</p> <p>Sodium Chlorate is not compatible with AMMONIUM COMPOUNDS; CYANIDES; and HYDROGEN PEROXIDE.</p>

SPILL/LEAKS

Isolation Distance:

Spill (solid): 25 meters (75 feet)

(solution): 50 meters (150 feet)

Fire: 800 meters (1/2 mile)

Absorb liquids in dry sand, earth, or a noncombustible material and place into sealed containers for disposal.

Moisten spilled material first or use a HEPA-filter vacuum for clean-up and place into sealed containers for disposal.

DO NOT wash into sewer.

Sodium Chlorate is dangerous to aquatic life at high concentrations.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Nonflammable
Specific Gravity:	2.5 (water = 1)
Water Solubility:	Soluble
Boiling Point:	Decomposes
Melting Point:	478°F (248°C)
Molecular Weight:	106.44

EXPOSURE LIMITS

No occupational exposure limits have been established for **Sodium Chlorate**.

The Protective Action Criteria values are:

PAC-1 = 0.4 mg/m³

PAC-2 = 3 mg/m³

PAC-3 = 75 mg/m³

PROTECTIVE EQUIPMENT

Gloves:	Butyl, Nitrile, Neoprene and Viton (>8-hr breakthrough)
Coveralls:	Tyvek® (<i>solid</i>); Tychem® F, C3, BR, CSM and TK (>8-hr breakthrough for Sodium Chlorate in solution)
Respirator:	Spill (<i>solid</i>): full facepiece APR with <i>High efficiency filters</i> >0.4 mg/m ³ or fire - SCBA

HEALTH EFFECTS

Eyes:	Irritation and burns
Skin:	Irritation and burns
Inhalation:	Headache, fatigue and blue color to the skin and lips (methemoglobinemia)

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn. Seek medical attention.

Quickly remove contaminated clothing and wash contaminated skin with large amounts of water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer promptly to a medical facility.