SODIUM HYDROXIDE PELLETS

SECTION 1: CHEMICAL PRODUCT IDENTIFICATION

Product Name: SODIUM HYDROXIDE PELLETS, EXTRA PURE.
Product Code: 439.
CAS#: 1310-73-2.
Synonym: Caustic Soda; Soda Lye.
Chemical Name: Sodium Hydroxide.
Chemical Formula: NaOH.
Formula Weight: 40.00

SECTION 2: COMPOSITION AND INFORMATION ON INGREDIENTS

Composition:
Name: Sodium Hydroxide.
Toxicological Data on Ingredients:
Corrosive to metals (Category 1), H290.
Skin corrosion (Category 1A), H314, R34.

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects: Severe eye and skin irritation. Causes skin burns. May cause corneal damage. May cause deep penetrating ulcers of the skin. May cause abdominal pain, nausea, vomiting, diarrhea.
Potential Chronic Health Effects:
Carcinogenic Effects: Not Available.
Mutagenic Effects: Not Available.
Teratogenic Effects: Not Available.
Developmental Toxicity: Not Available. Repeated or prolonged exposure is not known to aggravate medical condition.

SECTION 4: FIRST AID MEASURES

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin Contact: Wash off immediately with soap and plenty of water. Cover the irritated skin with emollient. Immediate medical attention is required.
Serious Skin Contact: Not available.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
Get medical attention.
Serious Inhalation: Not Available.
Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.
Serious Ingestion: Not available.

SECTION 5: FIRE AND EXPLOSION DATA

Flammability of the Product: Non-flammable.
Auto-Ignition Temperature: Not Available.

Flash Points: Not Applicable.
Flammable Limits: Not Applicable.
Products of Combustion: Emits Na_2O fumes when heated to decomposition.
Fire Hazards in Presence of Various Substances: Not Applicable.
Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not Available.
Fire Fighting Media and Instructions:
SMALL FIRE: Not applicable.
LARGE FIRE: Not applicable.
Special Remarks on Fire Hazards: Sodium carbonate can ignite and burn fiercely in contact with fluoride. Sodium Carbonate in contact with fluorine decomposed at ordinary temperature with incandescence.
Special Remarks on Explosion Hazards: Reacts explosively with red-hot aluminum metal. Sodium carbonate + ammonia in arabic gum solution will explode.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

SECTION 7: HANDLING AND STORAGE

Precautions:
Do not ingest. Do not breathe dust. If ingested, seek medical advice immediately and show the container or the label. Keep away from incompatibles such as oxidizing agents, acids.
Storage:
Keep container tightly closed. Keep container in a cool, well-ventilated area. Hygroscopic**.**

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls
Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.
Personal protective equipment
Eye/face protection Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Skin protection Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
Body Protection Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Respiratory protection For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle respirator.For higher level protection use type OV/AG/P99 (US) or type ABEK-P2 (EU EN 143) respirator cartridges. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Control of environmental exposure Do not let product enter drains.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance Form	: Solid, crystalline powder.
Colour	**:** Odourless.

Odour	: Not available
Odour Threshold	: Not available
pH	: ca. 11.0 (Basic pH).
Melting point/freezing point	: Not available
Initial boiling point and boiling range	: Not available
Flash point	: Not available
Evapouration rate	: Not available
Flammability (solid, gas)	: Not available
Upper/lower flammability or explosive limits	: Not available
Vapour pressure	: Not available
Vapour density	: Not available
Relative density	: Not available
Water solubility	: Not available
Partition coefficient	: Not available
Auto-ignition temperature	: Soluble in water.

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is chemically stable under standard ambient conditions (room temperature).
Instability Temperature: Not available.
Conditions of Instability: Incompatible materials, moisture.
Incompatibility with various substances: Reactive with acids. Slightly reactive to reactive with moisture.
Corrosivity: Non-corrosive in presence of glass.
Special Remarks on Reactivity: Hygroscopic. Combines with water with evolution of heat. Incompatible with phosphorus pentoxide, lithium, fluorine, fluoride, ammonia + silver nitrate, 2,4,6-trinitrotoluene, ammonia, acids, sodium sulfide + water, hydrogen peroxide, red hot alumium metal, sodium sulfide, zinc, calcium hydroxide. Sodium Carbonate is decomposed by acids with effervescence.
Special Remarks on Corrosivity: Hot concentrated solutions of sodium carbonate are mildly corrosive to steel.
Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

Routes of Entry: Inhalation, Ingestion.
Toxicity to Animals:
LD_{50}: Oral - rat - 4090 mg/kg
LC_{50}: Lepomis macrochirus (Bluegill) - 300 mg/l - 96 h.
EC_{50} Daphnia magna (Water flea) - 265 mg/l - 48 h
Chronic Effects on Humans: May cause damage to the following organs: upper respiratory tract, skin, eyes.
Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation (lung irritant).
Special Remarks on Toxicity to Animals: LDL [Man] – Oral; Dose: 714 mg/kg.
Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects based on animal test data.
Special Remarks on other Toxic Effects on Humans: Not available.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Not Available.
BOD and COD: Not Available.
Products of Biodegradation: The product itself and its products of degradation are not toxic.
Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods Product Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging Dispose of as unused product.

SECTION 14: TRANSPORT INFORMATION

UN number:
ADR/RID: **IMDG:** **IATA:**
UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods
Transport hazard class(es):
ADR/RID: **IMDG:** **IATA:**
Packaging group:
ADR/RID: **IMDG:** **IATA:**
Environmental hazards:
ADR/RID: No **IMDG Marine pollutant:** No **IATA:** No

SECTION 15: OTHER REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Sodium Hydroxide**.**
Other Regulations: Not available.
Other Classifications:
WHMIS (Canada): CLASS D-2B: Material causing other toxic effects (TOXIC); CLASS E: Corrosive solid.
DSCL (EEC): R34.
HMIS (U.S.A.):
Health Hazard: 2
Fire Hazard: 0
Reactivity: 1
Personal Protection: E
National Fire Protection Association (U.S.A.):
Health: 2
Flammability: 0
Reactivity: 1
Specific hazard: Not Available.
Protective Equipment: Gloves, Lab coat, Safety glasses, Dust respirator - be sure to use an approved/certified respirator or equivalent.

SECTION 16: OTHER INFORMATION

References: Full text of H AND R-Statements.
H290 – May be corrosive to metals.
H314, R34 –Causes severe skin burns and eye damage.
Other Special Considerations: Not available

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