



MSDS - Armacad-G

Feed Grade Sodium Sesquicarbonate

Issue Date: October 26, 2007

Section 1. Product Identification

Chemical Name: Sodium Sesquicarbonate

Synonyms: Inorganic Sodium Compounds

Chemical Formula: $\text{Na}_2\text{CO}_3 \cdot \text{NaHCO}_3 \cdot 2\text{H}_2\text{O}$

Distributed by Pestell Minerals & Ingredients, New Hamburg, ON Canada

24 Hour Emergency Telephone (Canutec): 613-996-6666

Section 2. Composition/Information on Ingredients

Chemical Ingredients	% byWeight	CAS Number
Natural Sodium Sesquicarbonate	98-100%	6106-20-3
(May contain silica, crystalline quartz)	<0.4%	14808-60-7
H2O Insolubles	<2.0%	NA

Hazards Identification

Emergency Overview

Brown-gray granular material, odorless. May irritate eyes and skin. Dust may irritate the upper respiratory tract. Not a fire hazard. Reacts with acids to release carbon dioxide and heat.

HMIS Rating

Health: 2

Fire: 0

Reactivity: 0

Potential Health Effects

Eye: May irritate on direct contact

Skin Contact: Continuous, repeated or occluded contact may cause varying degrees of skin irritation.

Ingestion: Ingestion of small amounts (<a tablespoon) may cause irritation and abdominal pain.

Ingestion of large amounts may cause injury.

Inhalation: Inhalation of airborne dust may irritate mucous membranes and the upper respiratory tract.

Subchronic Effects/Carcinogenicity: None known.

Section 3. Physical and Chemical Properties

Appearance: Off white to brown-gray granular material

Odor: None

Physical State: Solid

pH (1% Soln. w/w): 10.5

Vapor Pressure: Not applicable

Vapor Density: Not applicable

Boiling Point: Not applicable

Freezing/Melting Point: Not applicable

Solubility in Water: Readily soluble in water. 20% w/w 30°C (86°F)

Specific Gravity (Water=1): 2.25

Apparent Density: 0.9g - 1.1 g/cc

% Volatile Organic Compounds: Not applicable

Molecular Weight: 228

Section 4. Fire Fighting Measures

Flammable Properties

Flashpoint: Not combustible

Method Used: Not applicable

Flammable Limits: LEL/UFL: Not applicable

Extinguishing Media: Non-combustible material. Use extinguishing media appropriate for

surrounding fire.

Fire-Fighting Instructions: Sodium oxide, a thermal decomposition product existing at temperatures above 1564°F is a respiratory, eye and skin irritant. Avoid inhalation, eye and skin contact with sodium oxide dusts. Use a self-contained breathing apparatus (SCBA) and full protective equipment (Bunker Gear).

Unusual Fire and Explosion Hazards: None known

Section 5. Stability and Reactivity

Chemical Stability: Stable

Conditions to Avoid: Loses all water of hydration at temperatures above 228°F

Incompatibility with Other Materials: Reacts with acids to release carbon dioxide

Hazardous Decomposition Products: Carbon dioxide evolves when mixed with acids. Yields sodium oxide if exposed to temperatures above 1564°F. Avoid inhalation, eye and skin contact with sodium oxide.

Hazardous Polymerization: Not applicable

Section 6. Toxicological Information

Acute Oral: Material has low toxicity. LD50 4090 mg/kg (Rat), LC50 Inhalation 2300 mg/m³/2hr (Rat)

Carcinogenicity: Not classified as carcinogenic by NTP, IARC, OSHA, ACGIH or NIOSH. *This product may contain a small amount of silica, crystalline quartz (<0.4%) which is listed by IARC and NTP and NTP as a known human carcinogen when present in the form of fine, breathable dust particles as may be generated during industrial and occupational activities (e.g. mining).*

Ecological Information

Ecotoxicity: No specific data available for this product. Based on data generated for sodium bicarbonate and other carbonate salts, this product would be considered practically non-toxic to the aquatic organisms daphnids, bluegill and trout (EC50 or LC50 >100 mg/L).

Biodegradability: Does not apply to inorganic substances

Disposal Considerations

Bury in secure landfill in accordance with all local, state and federal environmental regulations. Empty containers may be incinerated or discarded as general trash.

Transportation Information

D.O.T. Shipping Name: Not regulated

Technical Shipping Name: Sodium Sesquicarbonate

D.O.T. Hazard Class: None

U.N./N.A. Number: None

Section 7. Accidental Release Measures

Wear Personal protective equipment. Scoop up into clean dry container for disposal. Wash affected area with large amounts of water.

Handling and Storage: Avoid exposure by wearing personal protective equipment. Store in a cool, dry area away from incompatible substances. Product reacts with acids to yield carbon dioxide gas which can accumulate in confined spaces. Do not enter confined spaces until they have been well ventilated and carbon dioxide levels have been determined to be safe.

Exposure Controls/Personal Protection

Exposure Limit: Sodium Sesquicarbonate as Total dust = 10mg/m³ (ACGIH); 15mg/m³ (OSHA) for particulates not otherwise classified (PNOC). Respirable fraction = 5mg/m³.

Exposure limit for silica, crystalline quartz = $10\text{mg}/\text{m}^3 \div \% \text{SiO}_2 + 2$ (Respirable); $30 \text{mg}/\text{m}^3 \div \% \text{SiO}_2 + 2$ (Total dust).

Engineering Controls: Use local or general exhaust ventilation to keep airborne concentrations below exposure limits.

Respiratory Protection: Wear a NIOSH approved respirator if total dust level exceeds 10 mg/m³

Protective Gloves: General purpose for handling dry material. Impervious gloves when working with solutions.

Eye Protection: Chemical goggles or safety glasses with side shields. Do not wear contact lenses.

Other Protective Clothing or Equipment: Full cover clothing. Apron where splashing may occur when working with solutions.

Protective Work/Hygiene Practices: No special requirements with respect to chemical exposure beyond those provided above. Personal protection with respect to specific applications of this material

is the responsibility of the user.

Section 8. First Aid Measures

Eyes: Immediately flush eyes with a directed stream of water for at least 15 minutes, forcibly holding eyelids apart to ensure complete irrigation of all eye and lid tissue. **If irritation persists get medical attention.**

Skin: Wash thoroughly with soap and water. Remove contaminated clothing and discard or wash before reuse. **If irritation occurs, get medical attention.**

Inhalation: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If respiration has stopped have a trained person administer artificial respiration. **Get medical attention immediately.**

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, wash out mouth with water provided the person is conscious. **Get medical attention immediately.**

NOTE TO PHYSICIAN: Large doses may produce systemic alkalosis and expansion in extracellular fluid volume with edema.

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