

**Global Product Strategy****Product Safety Summary****Sodium Borosilicate****Chemical Identity and Synonyms**

- CAS # 50815-87-7
- Synthetic amorphous sodium borosilicate
- Similar composition to sodium borosilicate glass which is widely used for laboratory glassware.

**Physical Chemical Properties**

- Stable dispersion of amorphous spherical particles of sodium borosilicate in water
- Particle sizes ranging from 1 - 100 nm
- Translucent white liquid
- pH of solution: 9 – 11

**Nalco Products**

- Ultra POSITEK® 8692, 8693, BD420. TR420 (This list only represents the products with the highest sales volume that contain this specific material.)

**Product Uses**

- Applied during the manufacture of paper to increase the conversion of trees to paper by insuring that raw material fibers used in the process are retained and become part of the final paper sheet.
- Facilitates the capture of raw material fibers in the produced paper sheet and minimizes the loss of value resources to the generation of waste.
- Enhances the removal of water from municipal sludges which reduces fuel consumption during transportation of the sludges.
- When used in combination with other water treatment additives, it improves the clarity and purity of produced or discharged water.

**Chemical Related Health Information**

- These products have a very low acute toxicity.
- They are minimally irritating to the eyes and skin.
- The products are not intended to be misted. However, should inhalation occur, the particles in these products are amorphous in structure and amorphous silicates have not been shown to cause adverse lung effects.
- The borosilicate particles are not expected to cause damage to genetic material (DNA) based on similar materials.

- The borosilicate particles are generally recognized as safe (GRAS) when used as a retention and drainage aid at specified use concentrations in the manufacture of paper and paperboard intended for food contact applications.

### **Chemical Related Environmental Information**

- These products have a low toxicity to aquatic life – fish, invertebrates or algae.
- These products are composed of common elements present in the earth and do not present a long-term hazard to the environment.

### **Chemical Exposure Potential**

- Engineering controls are in place at Nalco facilities to reduce exposures to employees, stakeholders, and the environment.
- During manufacture the raw materials used in the manufacture of sodium borosilicates are transferred in closed lines directly from their tanks to the processing reactor, minimizing operator exposure from open containers and transfers.
- Sodium borosilicates are not released to the air.
- The packaged products are warehoused and any spills in the warehouse that are not immediately contained, naturally drain to our process water waste treatment. The spilled material is then segregated to different tanks for disposal or treatment, depending on the severity of the spill. All treated wastewater is monitored and analyzed continually for compliance with state and local regulation.
- The sodium borosilicates are used in industrial applications and potential exposure is limited to those individuals working at the facility. As these products are liquids, storage and transfer to point of use is accomplished through closed lines and dedicated pumps that minimize worker and environmental exposures. Storage containers are clearly marked allowing for easy identification by workers.
- Nalco products intended for food contact applications are manufactured according to the requirements of the FDA.

### **Chemical Risk Mitigation**

- Risk is measured as a function of hazard and exposure. The sodium borosilicates have low hazards for both humans and the environment.
- When handled properly, utilizing appropriate personal protection equipment (PPE), any potential exposure to this material is significantly reduced.
- Under anticipated conditions of use, the risk to humans and the environment from sodium borosilicates is low.

- As with all products, care must be taken to prevent its release to the environment. In the event of a chemical release or spill, Nalco has procedures in place that will reduce the potential human and/or environmental exposure through containment and remediation efforts.

### **Legal Statements**

This product stewardship summary provides only basic health and safety information for general public use. Product stewardship summaries are not to be used in lieu of any regulatory or legal documentation and are not to be substituted for any right-to-know notifications.