

MATERIAL SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Company: CHALCO Shandong Branch

NO.1, WUGONGLI ROAD, ZIBO, SHANGDONG 255052, CHINA

Product name: SODIUM ALUMINUM SILICATE (4A Zeolite , Zeolite A, Zeolite 4AP)

TSCA CAS REGISTRY NO.: This product is a mixture under TSCA. CAS No. for identification
purposess:68989-22-0

SECTION 2 INFORMATION ON INGREDIENTS

Composition: SODIUM ALUMINUM SILICATE (Zeolite 4A)

Chemical formula: $\text{Na}_2\text{O} \cdot \text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2 \cdot 4.5\text{H}_2\text{O}$

SECTION 3 HAZARDS IDENTIFICATION

Most important Hazards (Effects of overexposure):

Eyes and Skin: Studies have been reported to be negative. No evidence of absorption or advice health effects
based on animal test.

Ingestion: Considered to be non-toxic.

SECTION4 FIRST-AID MEASURES

Eyes: Flush thoroughly with large amounts of water. Seek medical attention if irritation persists.

Skin: Wash with water, if symptoms occur, consult physician. Wash clothing before reuse.

Ingestion: No known adverse effects.

Inhalation: Dust may irritate respiratory tract. Call a physician.

SECTION5 FIRE FIGHTING MEASURES

Flash point: Noncombustible

Special fire fighting procedures: N.A.

Conditions to avoid: None known

Incompatibility (material to avoid): N.A.

Hazardous decomposition products: None

SECTION6 ACCIDENTAL RELEASE MEASURES

Personal precautions: Avoid contacting with skin and eyes by wearing an approved dust mask.

Precaution: Wash after contact with product.

Environmental measures: No special measures required, comply with local regulations.

SECTION7 HANDLING AND STORAGE

Max. Storage temperature: not available

Preferred storage: Indoor, store in accordance with standard approved warehousing procedures. Repair all broken bags immediately.

Handling: All handling may cause dust emission. Organize the handling in such a way, that the creation of dust is minimized. Secondary dust emission may be minimized by means of good housekeeping.

SECTION8 EXPOSURE CONTROL/PERSONAL PROTECTION-

Engineering Controls: Use with adequate ventilation

Respiratory: Use NIOSH-certified dust respirator where dust occurs. Observe OSHA regulations for respirator use (CFR 1910.134)

Eye protection: Chemical goggles and /or face shield

Gloves: Rubber where contact likely.

Personal hygien: Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Wash thoroughly after handling. Wash contaminated clothing before re-use.

Other protective equipment: Safety shower and eyewash fountain should be within direct access.

SECTION9 PHYSICAL/CHEMICAL PROPERTIES

Appearance and odor: White powder. Odorless

Specific gravity: Greater than 1

Flash Point: Noncombustible

Solubility in water: Negligible

PH: Water dispersions are alkaline- PH=10-11

SECTION10 STABILITY AND REACTIVITY

Conditions to be avoided: None in designed use

Hazardous decomposition products: None

SECTION II TOXICOLOGICAL INFORMATION

Toxicity Data: Not data available.

Irritation Data: May cause irritation to eyes and skin.

SECTION12 ECOLOGICAL INFORMATION

General notes: The product being rather stable and should be handled carefully in such a way, avoid dusty, and it will not contaminate the environment. No further negative effects on the environment are reported.

SECTION 13 DISPOSAL CONSIDERATIONS

Environmental hazard: Waste from this material is not considered as dangerous waste according to EU-rules and can generally be brought to a normal tip with a permit to handle industrial waste. When contaminated with dangerous products the advice of an expert has to be obtained.

Spillage: Sinks in water. Sweep, scoop or vacuum discharged material. Flush residue with water.

SECTION 14 TRANSPORT INFORMATION

Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

Non-Hazardous for Air Transport: Non-hazardous for air transport.

SECTION 15 REGULATORY INFORMATION

Designation according to EC guidelines: not required

Risk phrase: Possible risk of irreversible effects

Safety advice: Avoid contact with eyes & skin

Water hazard class: Not list in U.N. hazardous list – class 0 (self-assessment)

SECTION16 OTHER INFORMATION

These date are based on our present knowledge. Material safety data sheets can never serve the purpose of a specification.

Effective Date: 01/01/2009

N.A.= Not Applicable