

# **ZEOLITE-4A (MCIZ4A)**

DATE OF ISSUE: 2016-06-01

## **1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

**PRODUCT NAME:** ZEOLITE 4A -MCIZ4A  
**PRODUCT DESCRIPTION:** ZEOLITE 4A- SODIUM ALUMINO SILICATE  
**PRODUCT USE:** Detergent Grade  
**HS CODE:** 28421000  
**MANUFACTURER:**  
**METRO CHEM INDUSTRIES.**  
Plant: Plot No. 407, 408 Phase II, Vatva G. I. D. C. Industrial Estate, Vatva,  
Ahmedabad Gujarat 382 445 INDIA  
E-mail: [export@metrochemgroup.com](mailto:export@metrochemgroup.com)  
**Emergency Number:** +91 7045269159

## **2. COMPOSITION/INFORMATION ON INGREDIENTS**

<b>Chemical Name</b>	<b>CAS Registry</b>	<b>Wt. %</b>	<b>OSHA PEL</b>	<b>ACGIH TLV</b>
MCIZ4A - Zeolite 4A	1318-02-1	78-82%	15 mg/m <sup>3</sup> total dust 5mg/m <sup>3</sup> respirable (Particulates Not otherwise regulated)	10 mg/m <sup>3</sup> 3 mg/m <sup>3</sup> respirable
Water	7732-18-5	18-22%	Not established	Not established

## **3. HAZARDS IDENTIFICATION**

**EMERGENCY OVERVIEW:** White, Odorless, powder. May Cause respiratory irritation. May cause irritation to the eyes and skin. Non - combustible

**EYE CONTACT:** Causes mild irritation to the eyes.

**SKIN CONTACT:** May Cause irritation to the skin.

**INHALATION:** May cause respiratory irritation

**INGESTION:** No known hazards. Inedible.

**CHRONIC HAZARDS:** No known hazards

**PHYSICAL HAZARDS:** No known hazards

## **4. FIRST AID MEASURES**

**EYE:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation persists.

**SKIN:** In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse.

**INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If

**INGESTION:**

breathing is difficult, give oxygen. Get medical attention.  
Not applicable.

## 5. FIRE FIGHTING MEASURES

**FLAMMABLE LIMITS:**

This material is non-combustible.

**EXTINGUISHING MEDIA:**

This material is compatible with all extinguishing media

**HAZARDS TO FIRE-FIGHTERS:**

See Section 3 for information on hazards when this material is present in the area of a fire.

**FIRE-FIGHTING EQUIPMENT:**

The following protective equipment for fire fighters is recommended when this material is present in the area of a fire: chemical goggles, body covering protective clothing, chemical resistant gloves, and rubber boots.

**HAZARDOUS COMBUSTION**

**PRODUCTS:**

Not available

**EXPLOSION DATA**

**SENSITIVITY TO MECHANICAL**

**IMPACT AND STATIC DISCHARGE:**

Not applicable

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTION:**

Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots, NIOSH-approved dust respirator where dust occurs. See section 8.

**ENVIRONMENTAL HAZARDS:**

Sinks in water. No known environmental hazards.

**SMALL SPILL CLEANUP:**

Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate PPE. See section 8.

**LARGE SPILL CLEANUP:**

Keep unnecessary people away; isolate hazard area and deny entry. Do not touch or walk-through spilled material. Carefully shovel or sweep up spilled material and place in suitable container. Avoid generating dust. Use appropriate PPE. See section 8.

**CERCLA RQ (US):**

There is no CERCLA Reportable Quantity for this material. If a spill goes off site, notification of state and local authorities is recommended.

## 7. HANDLING AND STORAGE

**HANDLING:**

Avoid contact with eyes, skin and clothing. Avoid breathing dust. Keep container closed. Promptly clean up spills. Wash thoroughly after handling.

**STORAGE:**

Keep containers closed. Store in original containers or clean metal, plastic, or fiber containers

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:**

Use with adequate ventilation. Safety shower and eyewash fountain

<b>RESPIRATORY PROTECTION:</b>	should be within direct access. Use a NIOSH-approved dust respirator where dust occurs. Observe Provincial regulations for respirator use.
<b>SKIN PROTECTION:</b>	Wear body-covering protective clothing and gloves.
<b>EYE PROTECTION:</b>	Wear chemical goggles.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE:</b>	Powder.
<b>COLOR:</b>	White.
<b>ODOUR:</b>	Odorless.
<b>PH:</b>	(Water dispersions) 10.1-11.4
<b>BULK DENSITY:</b>	0.45 – 0.50 g/cc
<b>SOLUBILITY IN WATER:</b>	Insoluble.
<b>FLASH POINT:</b>	Not applicable
<b>AUTO-IGNITION TEMPERATURE:</b>	Not applicable
<b>VAPOR PRESSURE:</b>	Not applicable
<b>VAPOR DENSITY:</b>	Not applicable
<b>EVAPORATION RATE:</b>	Not applicable
<b>BOILING POINT:</b>	Not applicable
<b>FREEZING POINT:</b>	Not applicable
<b>COEFFICIENT OF WATER /OIL DISTRIBUTION:</b>	Not applicable

## 10. STABILITY AND REACTIVITY

<b>STABILITY:</b>	Stable.
<b>CONDITIONS TO AVOID:</b>	None.
<b>MATERIALS TO AVOID:</b>	Hydrides and other water-reactive compounds, strong acids, strong alkalis. Hazardous decomposition
<b>PRODUCTS:</b>	None.

## 11. TOXICOLOGICAL INFORMATION

<b>ACUTE DATA:</b>	When tested for primary eye irritation potential, hydrated sodium zeolite A was non-irritating or caused mild or slight irritation which subsided within 48 hours. When tested for primary skin irritation potential, hydrated sodium zeolite 4A was non-irritating or caused mild irritation. This material is acutely non-toxic by ingestion. When tested for respiratory irritation potential, hydrated sodium zeolite 4A caused no effects or irritation like calcium carbonate and less than silica.
<b>SUBCHRONIC DATA:</b>	In a study of rats fed hydrated zeolite 4A for 168 or 200 days at 0.125% and 2% of the diet adverse effects were reported in the urinary bladder and kidneys like those reported for other silicates ingested at high levels.

## 12. ECOLOGICAL INFORMATION

## MATERIAL SAFETY DATA SHEET

<b>ECO TOXICITY:</b>	Both acute and long-term studies of sodium zeolite A on freshwater microcrustacean, <i>Daphnia magna</i> , and the freshwater fish, <i>Idus idus melantos</i> , showed no significant effects on survival or reproduction. 96 hour lethality tests with Sodium Zeolite 4A on the freshwater species, <i>Lepomis macrochirus</i> , <i>Ictalurus punctatus</i> , and <i>Pimephales promelas</i> , also did not reveal any effects with concentrations of Sodium Zeolite of up to 680 mg/L. Similar results were obtained for the marine species <i>Crassostrea virginica</i> , <i>Penaeus duorarum</i> , and <i>Lagodon rhomboides</i> at concentrations of Sodium Zeolite A of up to 780 mg/L. A 30-day test with fathead minnows showed no significant effects of suspended Sodium Zeolite 4A on hatchability, survival, or growth at the highest concentration tested, 87 mg/L. Long term pond studies also failed to show any deleterious effects of sodium zeolite 4A on zooplankton, macroinvertebrate, or fish populations, when ponds were treated either with 80-200 mg/L sodium Zeolite A under static conditions, or with a continuous input of 15mg/L.
<b>ENVIRONMENTAL FATE:</b>	Sodium zeolite 4A is thermodynamically unstable. In aqueous suspensions, Sodium zeolite 4A will transform to amorphous sodium aluminosilicate in minutes to hours at natural environmental pH. Because sodium zeolite A rapidly hydrolyzes under environmental conditions it cannot bio accumulate.
<b>PHYSICAL/CHEMICAL:</b>	Sinks in water. Only water will evaporate from this material.

### 13. DISPOSAL CONSIDERATIONS

<b>DISPOSAL METHOD:</b>	Dispose in accordance with federal, provincial, and local regulations.
-------------------------	--

### 14. TRANSPORT INFORMATION

<b>TDG UN STATUS:</b>	This material is not regulated hazardous material for transportation.
-----------------------	---

### 15. REGULATORY INFORMATION

<b>WHMIS (Canada):</b>	D2B This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.
<b>CERCLA (US):</b>	No CERCLA Reportable Quantity has been established for this material.
<b>SARA TITLE III (US):</b>	Not an Extremely Hazardous Substance under §302. Not a Toxic Chemical under §313. Hazard Categories under §§311/312: Acute
<b>TSCA (US):</b>	All ingredients of this material are listed on the TSCA inventory.
<b>FIFRA:</b>	Sodium zeolite A is exempt from the requirement of a tolerance when used in accordance with good agricultural practice as an inert (or occasionally active) ingredient in pesticide formulations applied to growing crops or to raw agricultural commodities after harvest when used as a solid diluent, carrier pursuant to 40 CFR §180.1001.

## 16. OTHER INFORMATION

**PREPARED BY:** Samir Shah / Manish Jain

**MSDS Creation Date:** 08/06/2014

**Revision #2 Date:** 08/05/2015

*The Information on This Safety Data Sheet Is Believed to Be Accurate and It Is the Best Information Available to Metro Chem Industries This Document Is Intended Only as A Guide to The Appropriate Precautions for Handling A Chemical By A Person Trained In Chemical Handling. Metro Chem Industries Makes No Warranty of Merchantability or Any Other Warranty, Express or Implied with Respect to Such Information or The Product to Which It Relates, And We Assume No Liability Resulting from The Use or Handling Of The Product To Which This Safety Data Sheet Relates. Users And Handlers of This Product Should Make Their Own Investigations to Determine the Suitability of The Information Provided Herein for Their Own Purposes.*

**FOR, METRO CHEM INDUSTRIES**