

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

Product Trade Name: **CHEM ALUM DEOX 560**

Manufacturer Information

**Heatbath Corporation**  
P.O. Box 51048  
Indian Orchard, MA 01151-5048

Contact Phone: (413) 452-2000  
8:00 AM - 5:00 PM

CHEMTREC Emergency Phone: (800) 424-9300  
24 Hours

CHEMTREC International: (703) 527-3887

**Recommended Use:** Non-chrome desmutter/deoxidizers for aluminum

**Restrictions on Use:** See Incompatibility, Section 10

## \*\*\* Section 2 - Hazards Identification \*\*\*

**OSHA Hazard Communication Standard:** Considered a Hazardous Substance by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200). Classified as Dangerous Goods for transport purposes.

**Hazard Classification:** Acute Toxicity (Dermal) Category 4 | Acute Toxicity (Oral) Category 4 | Metal Corrosion Category 1 | Serious Eye Damage Category 1 | Skin Corrosion/Irritation Category 1A | Carcinogen

**Labeling:**



**Signal Word:** DANGER!

**Hazard Statements:** May be corrosive to metals. Harmful if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. May cause cancer.

**PREVENTION:** Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection. Keep only in original packaging. Do not eat, drink or smoke when using this product.

**FIRST AID/IN CASE OF FIRE:** IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Specific treatment (see Section 4). Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. IF ON SKIN: Wash with plenty of water/... IF INHALED: Remove person to fresh air and keep comfortable for breathing. Take off contaminated clothing and wash it before reuse.

**STORAGE:** Store locked up.

**DISPOSAL:** Dispose of contents/container in accordance with all local, regional, national and/or international regulations.

**Hazards Not Otherwise Classified:** N.A.

**Percent of Ingredients of Unknown Toxicity:** N.A.

## \*\*\* Section 3 - Composition / Information on Ingredients \*\*\*

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

HAZARDOUS INGREDIENT	CAS #	PERCENT
SULFURIC ACID	7664-93-9	10 - 30% (T.S.)
NITRIC ACID	7697-37-2	1 - 10% (T.S.)
HYDROFLUORIC ACID	7664-39-3	<1% (T.S.)
FERRIC SULFATE	10028-22-5	10 - 30% (T.S.)

T.S. = Trade Secret

\*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

**Component Related Regulatory Information:** This product may be regulated, have exposure limits or other information identified.

## \*\*\* Section 4 - First Aid Measures \*\*\*

If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. Continue flushing until advised to stop by the Poisons Information Center or a doctor, or for at least 15 minutes. If there is evidence of severe skin irritation or skin burns: Avoid further contact. Immediately remove contaminated clothing, including footwear. Flush skin under running water for 15 minutes. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. For advice, contact a Poisons Information Center or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting.

## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

**Flash Point:** Not determined  
**Flammable Limits:** Not determined

**Upper Flammable Limit:** Not determined  
**Lower Flammable Limit:** Not determined

**Extinguishing Media, PPE and Guidance for FireFighter:** Water spray or fog. Foam. Dry chemical powder. Alert Fire Department and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus. Prevent, by any means available, spillage from entering drains or water course.

**Fire and Explosion Hazards:** Non combustible. Not considered to be a significant fire risk. Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.

**Decomposition Products:** Oxides of nitrogen, oxides of sulfur, hydrogen fluoride, fluorine

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

**Containment and Clean up procedures must be conducted in accordance with all local, state, and federal regulations.**

**Containment and Clean-Up Procedures:** Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material. Check regularly for spills and leaks. Clean up all spills immediately. Clear area of personnel and move upwind. Alert Fire Department and tell them location and nature of hazard. Wear full body protective clothing with breathing apparatus.

## \*\*\* Section 7 - Handling and Storage \*\*\*

**Handling and Storage Procedures:** Avoid all personal contact, including inhalation. Wear protective clothing when risk of exposure occurs. Use in a well-ventilated area. Store in original containers. Keep containers securely sealed. Store in a cool, dry, well-ventilated area.

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### Exposure Guidelines:

**A. General Product Information:** Follow all applicable exposure limits. Keep formation of airborne mists to a minimum.

### B. Component Exposure Limits:

CAS #	HAZARDOUS INGREDIENT	OSHA PEL(mg/m3)	ACGIH TLV(mg/m3)
7664-93-9	Sulfuric Acid	1	0.2
10028-22-5	Ferric Sulfate	N.E.	N.E.
7697-37-2	Nitric Acid	2.0 ppm	2.0 ppm
7664-39-3	Hydrofluoric Acid	3 ppm (as F)	0.5 ppm (as F)

\*OSHA-PEL and ACGIH-TLV are 8-Hour TWA unless otherwise noted.

\*per CFR 29, Part 1910.1200; ingredients listed only if deemed hazardous and comprise 1% or greater of the composition (0.1% or greater for carcinogens).

**Engineering Controls:** Set up ventilation to effectively remove and prevent buildup of any dust, vapor or mist generated from the handling of this product.

### PERSONAL PROTECTIVE EQUIPMENT

**Eyes/Face Protective Equipment:** Wear appropriate eye protection to prevent eye contact.

**Skin Protection:** Wear appropriate personal protective clothing to prevent skin contact. The worker should immediately wash the skin when it becomes contaminated. Remove wet or significantly contaminated work clothing and replace.

**Respiratory Protection:** If ventilation is not sufficient to effectively prevent buildup of dust, mists or vapors, provide appropriate NIOSH/MSHA respiratory protection.

**Personal Protective Equipment:** Provide eyewash fountains in areas where there is any possibility that workers could be exposed to the substance; this is irrespective of the recommendation involving the wearing of eye protection.

Provide facilities for quickly drenching the body within the immediate work area for emergency use where there is a possibility of exposure. Depending on the specific circumstances, a deluge shower, a sink or hose could be considered adequate.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

<b>Physical State:</b> Liquid	<b>Boiling Point:</b> >225 °F (>107.2 °C)
<b>Color:</b> Colorless	<b>Boiling Range:</b> Not determined
<b>Odor Threshold:</b> Sharp acid	<b>Melting Point:</b> Not Available
<b>pH:</b> 0.5	<b>Freezing Point:</b> Not determined
<b>Specific Gravity:</b> 1.39	<b>Flash Point:</b> Not Available
<b>Evaporation Rate:</b> Not determined	<b>Auto-Ignition Temperature:</b> Not determined
<b>Solubility Water:</b> Complete	<b>Decomposition Temperature:</b> Not determined
<b>Viscosity:</b> Not determined	<b>Flammability:</b> Non-flammable
<b>Vapor Density:</b> Not determined	<b>Flammability Limits - Low:</b> Not determined
<b>Vapor Pressure:</b> Not determined	<b>Hi:</b> Not determined
<b>Octanol-Water</b> N.E.	

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

**Chemical Stability:** Contact with alkaline material liberates heat Unstable in the presence of incompatible materials. Product is considered stable..

**Conditions to Avoid:** None

**Incompatibility:** Avoid contact with organic materials, oil, greases, and any oxidizable materials. This material will react with glass concrete, certain metals, silica containing materials, rubber, leather, and many organics. This product may react with strong alkalis. Adding water to this product may cause localized overheating and splattering.

**Decomposition Products:** See Section 5.

**Hazardous Polymerization:** Will not occur.

## \*\*\* Section 11 - Toxicological Information \*\*\*

**Route of Exposure:** Eye/skin contact, inhalation, ingestion.

**Acute Toxicity:**

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

## A: General Product Information

**Eye Contact:** If applied to the eyes, this material causes severe eye damage. Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely. Eye contact with both diluted and concentrated nitric acid may result in burns causing pain, adhesions, corneal damage, blindness or permanent eye damage.

**Skin Contact:** Skin contact with the material may be harmful; systemic effects may result following absorption. Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Fluorides are easily absorbed through the skin and cause death of soft tissue and erode bone. Healing is delayed and death of tissue may continue to spread beneath skin.

**Skin Absorption:** No information available for this product.

**Ingestion:** Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and esophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Exposure to nitric acid causes burning pain, severe corrosion and scarring of the digestive tract with adhesions, narrowing and obstruction and even anemia.

**Inhalation:** Inhalation of vapors or aerosols (mists, fumes), generated by the material during the course of normal handling, may be harmful. The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage.

**Chronic Hazards:** Repeated or prolonged exposure to acids may result in the erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, with cough, and inflammation of lung tissue often occurs. Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. May cause cancer.

**Medical Conditions Aggravated by Exposure:** Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS.

## Carcinogenicity:

### a: Component Carcinogenicity:

Sulfuric Acid Mist

**NTP:** No.  
**OSHA:** No.

**IARC:** Monograph 54; 1992  
(Group 1(carcinogenic to humans)) - occupation exposures to strong inorganic acid mists containing sulfuric acid.

**IARC:** No.  
**ACGIH:** A2 - Suspected Human Carcinogen (contained in strong inorganic acid mists).

**ACGIH:** A4 - Not Classifiable as a Human Carcinogen (related to Fluorides)

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

## \*\*\* Section 12 - Ecological Information \*\*\*

### Ecotoxicity:

#### A: General Product Information

No information available for this product.

#### B. Component Analysis - Ecotoxicity - Aquatic Toxicity:

No information available for this product.

**Persistence and Mobility:** No information available for this product

**Bioaccumulation Potential:** No information available for this product.

**Environmental:** For Inorganic Sulfate: Environmental Fate - Sulfates can produce a laxative effect at concentrations of 1000 - 1200 mg/liter, but no increase in diarrhea, dehydration or weight loss. The presence of sulfate in drinking-water can also result in a noticeable taste. Sulfate may also contribute to the corrosion of distribution systems. No health-based guideline value for sulfate in drinking water is proposed.

**Mobility in Soil:** No information available.

## \*\*\* Section 13 - Disposal Considerations \*\*\*

Wastes must be tested using methods described in 40 CFR Part 261. It is the generator's responsibility to determine if the waste meets applicable definitions of hazardous wastes. State and local regulations may differ from Federal disposal regulations. Dispose of waste material according to Local, State, Federal and Provincial Environmental Regulations.

## \*\*\* Section 14 - Transportation Information \*\*\*

**US DOT Information:** UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, SULFURIC ACID), 8, PG II

**Marine Pollutant:** No

**IMDG Classification:** UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, SULFURIC ACID), 8, PG II

**IATA Classification:** UN3264, CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (NITRIC ACID, SULFURIC ACID), 8, PG II

The data provided in this section is for information only and may not be specific for the package size or mode of transportation. See package label for further details.

## \*\*\* Section 15 - Regulatory Information \*\*\*

### US Federal Regulations

#### A: General Product Information

No additional information available.

#### B: Component Analysis

This material may contain chemicals, requiring identification under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

# Safety Data Sheet

Product Trade Name: **CHEM ALUM DEOX 560**

ID: H241

<u>HAZARDOUS COMPONENT</u>	<u>CERCLA RQ LBS.</u>	<u>SECT 302 TPQ LBS.</u>	<u>SECT 313* TOXIC</u>	<u>Maximum %</u>
Sulfuric Acid	1000	1000	Aerosol forms only	30
Ferric Sulfate	1000	N.A.	No	30
Nitric Acid	1000	1000	Yes	10
Hydrofluoric Acid	100	100	Yes	1

**Sara 311/312 Hazards:**

<b>Immediate (Acute)</b>	TRUE
<b>Chronic*</b>	TRUE
<b>Fire</b>	FALSE
<b>Sudden Release-of-Pressure</b>	FALSE
<b>Reactive</b>	FALSE

**State Regulations**

**A: General Product Information**

No additional information available.

**Other Regulations**

**A: General Product Information**

All components are on the U.S. EPA TSCA Inventory List.

**B: Component Analysis - Inventory**

**\*\*\* Section 16 - Other Information \*\*\***

**Revision Date:**

Rev. 1, June 1, 2015

**Key/Legend:**

ACGIH = American Conference of Governmental Industrial Hygienists	NFPA = National Fire Protection Association
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act	NIOSH = National Institute for Occupational Safety and Health
EPA = Environmental Protection Agency	NTP = National Toxicology Program
HMIS = Hazardous Material Identification System	OSHA = Occupational Safety and Health Administration
IARC = International Agency for Research on Cancer	SARA = Superfund Amendments and Reauthorization Act
MSHA = Mine Safety and Health Administration	TSCA = Toxic Substance Control Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Heatbath Corporation bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.

This is the end of MSDS for CHEM ALUM DEOX 560.