

# Safety Data Sheet

Product Trade Name: **STA-HARD 45**

ID: STHARD45

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

Product Trade Name: **STA-HARD 45**

### 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:** Heat Treating Salt

**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). Not classified as Dangerous Goods for transport purposes.

**Hazard Classification:** Acute Toxicity (Inhalation) Category 4 | Acute Toxicity (Oral) Category 3 | Eye Irritation Category 2A | Skin Corrosion/Irritation Category 2 | STOT - SE (Resp. Irr.) Category 3

### Labeling:



**Signal Word:**

DANGER!

**Hazard Statements:**

Toxic if swallowed. Causes skin irritation. Causes serious eye irritation. Harmful if inhaled. May cause respiratory irritation.

**PREVENTION:**

Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray. Wear protective gloves/protective clothing/eye protection/face protection.

**FIRST AID/IN CASE OF FIRE:**

IF SWALLOWED: Immediately call a POISON CENTER/doctor/... Specific treatment Rinse mouth. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER/doctor/...if you feel unwell. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water/... IF INHALED: Remove person to fresh air and keep comfortable for breathing. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

**STORAGE:**

Store locked up. Store in a well-ventilated place. Keep container tightly closed.

**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 \*\*\*

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HAZARDOUS INGREDIENT	CAS #	PERCENT
BARIUM CHLORIDE	10361-37-2	60 - 80% (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 Centre or a doctor, or for at least 15 minutes. If skin contact occurs: Immediately remove all contaminated clothing, including footwear. Flush skin and hair with running water (and soap if available). Seek medical attention in event of irritation. If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY. For advice, contact a Poisons Information Centre or a doctor. Urgent hospital treatment is likely to be needed.

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

**Flash Point:** None.

**Upper Flammable Limit** N.A.

**Flammable Limits:** None.

**Lower Flammable Limit** N.A.

**Extinguishing Media, PPE and Guidance for FireFighter:** Alert Fire Department and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves in the event of a fire. Prevent, by any means available, spillage from entering drains or water courses. Do NOT use water on a molten salt bath - potential explosion hazard. Carbon dioxide or dry chemical may be used for material around the immediate vicinity of the salt bath. Water may be used on granular/powder material.

**Fire and Explosion Hazards:** Non combustible. Not considered a significant fire risk, however containers may burn. Decomposition may produce toxic fumes of: hydrogen chloride Decomposes at high temperatures to produce barium oxide.

**Decomposition Products:** Oxides of sodium, chlorine

## \*\*\* 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:** Remove all ignition sources. Clean up all spills immediately. Avoid contact with skin and eyes. Moderate hazard. CAUTION: Advise personnel in area. Alert Emergency Services and tell them location and nature of hazard.

## \*\*\* 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 area protected from environmental extremes. Avoid strong acids, acid chlorides, acid anhydrides and chloroformates. Emptied containers of this product may contain hazardous vapors and residue. Clean thoroughly before reusing or discarding. Do not use a welding torch to cut container. Do not use for water or food storage.

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## \*\*\* 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)
10361-37-2	Barium Chloride	0.5 (as BA)	0.5 (as BA)

\*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 \*\*\*

**Physical State:** Granular

**Color:** Odorless, white powder

**pH:** Not Available

**Specific Gravity:** N.A.

**Evaporation Rate:** N.A.

**Solubility Water:** Complete

**Vapor Density:** N.A.

**Vapor Pressure:** N.A.

**Octanol-Water Coefficient:** N.E.

**Boiling Point:** N.A.

**Melting Point:** Not Available

**Flash Point:** Not Available

**Auto-Ignition Temperature:** N.E.

**Decomposition Temperature:** N.E.

**Flammability Limits - Low:** N.A.

**Hi:** N.A.

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

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**Chemical Stability:** Unstable in the presence of incompatible materials. Product is considered stable.

**Conditions to Avoid:** None

**Incompatibility:** For molten salt, avoid combustibles.

**Decomposition Products:** See section 5.

**Hazardous Polymerization:** Will not occur.

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

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

### Acute Toxicity:

#### A: General Product Information

**Eye Contact:** This material can cause eye irritation and damage in some persons.

**Skin Contact:** This material can cause inflammation of the skin on contact in some persons. The material may accentuate any pre-existing dermatitis condition. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.

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

**Ingestion:** Toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 40 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of soluble barium compounds may result in ulceration of the mucous membranes of the gastrointestinal tract, tightness in the muscles of the face and neck, gastroenteritis, vomiting, diarrhea, muscular tremors and paralysis, anxiety, weakness, labored breathing, cardiac irregularity due to contractions of smooth striated and cardiac muscles (often violent and painful), slow irregular pulse, hypertension, convulsions and respiratory failure.

**Inhalation:** Inhalation of dusts, 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.

**Chronic Hazards:** 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. Barium compounds may cause high blood pressure, airway irritation and damage the liver, spleen and bone marrow. Prolonged exposure may cause a lung inflammation and scarring.

**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:

None.

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

**IARC:** No.

**Reproductive/Genetic/Developmental Effects:** Prolonged exposure to barium in high concentrations caused kidney effects in rats and mice.

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## \*\*\* 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

**Environmental:** For Chloride: Although inorganic chloride ions are not normally considered toxic they can exist in effluents at acutely toxic levels. Incidental exposure to inorganic chloride may occur in occupational settings where chemicals management policies are improperly applied. The toxicity of chloride salts depends on the counter-ion (cation) present; that of chloride itself is unknown. Chloride toxicity has not been observed in humans except in the special case of impaired sodium chloride metabolism, e.g. in congestive heart failure.

**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:** ALKALI SALTS CRUDE, NOT D.O.T. REGULATED

**Marine Pollutant:** No

**IMDG Classification:** None

**IATA Classification:** None

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).

<b>HAZARDOUS COMPONENT</b>	<b>CERCLA RQ LBS.</b>	<b>SECT 302 TPQ LBS.</b>	<b>SECT 313* TOXIC</b>	<b>Maximum %</b>
Barium Chloride	N.A.	N.A.	Yes	80

**Sara 311/312 Hazards:**

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

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## 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 SDS for STA-HARD 45.