

Material Safety Data Sheet

Product Trade Name: **CHEMSHIELD® 2500 SR-C**

ID: H788

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

Product Trade Name: CHEMSHIELD® 2500SR-C

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

*** Section 2 - Hazardous Ingredients ***

CAS #	Component	Percent
007681-53-0	Sodium Hypophosphite	30 – 40
001336-21-6	Ammonium Hydroxide	10 – 20
Mixture	Organic Acid Mixture	1 – 10

Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following:
Ammonia (007664-41-7).

Additional Information:

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

*** Section 3 - Hazards Identification ***

Emergency Overview:

WARNING! - CORROSIVE LIQUID - Contact with this material can cause burns to eye tissue and skin, will cause severe eye & skin irritation. Inhalation will cause respiratory irritation. Ingestion is harmful.

Eye Contact:

This product is corrosive to the eyes. Contact may cause destruction of eye tissue and irreversible damage including burns and blindness.

Skin Contact:

This product is corrosive to the skin. Contact with the skin or mucous membranes may cause irritation such as redness or dryness.

Ingestion:

This product will cause burns to the throat, esophagus, and gastrointestinal tract if it is swallowed.

Inhalation:

Inhalation of mists of this product will cause irritation to the nasal passages and respiratory tract.

Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin, gastrointestinal and respiratory disorders may be aggravated by exposure.

*** Section 4 - First Aid Measures ***

Eye Contact:

In case of contact with the eyes, rinse immediately with plenty of water for 15 minutes and get immediate medical attention.

Skin Contact:

For skin contact, wash immediately with mild soap and water. Remove any contaminated clothing and shoes. Launder clothing before reuse. If irritation develops or persists, get medical attention.

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Ingestion:

If the material is swallowed, get immediate medical attention. Give victim several glasses of water to drink. Do not induce vomiting. Do not give anything by mouth to an unconscious person.

Inhalation:

If mist or vapor of this product is inhaled, remove person immediately to fresh air and get immediate medical attention. If victim's breathing is difficult, give oxygen. If victim is unconscious, give respiratory support.

First Aid: Notes to Physician

No information available.

***** Section 5 - Fire Fighting Measures *****

Flash Point: None	Method Used: Calculated	Flammability
Upper Flammable	Lower Flammable	Classification: Nonflammable
Limit (UFL): Not applicable	Limit (LFL): Not applicable	

Fire & Explosion Hazards:

When heated at or above 392 °F (200 °C), material can form flammable and explosive vapors with air.

Decomposition Products:

When heated to decomposition, this product may emit toxic fumes of sodium oxide, phosphine gas, phosphorous oxides and ammonia.

Extinguishing Media:

Use dry chemical, foam, carbon dioxide, and/or water fog.

Fire-Fighting Instructions:

Firefighters: Wear full protective clothing including self-contained breathing apparatus. Properly decontaminate all equipment after use.

***** Section 6 - Accidental Release Measures *****

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

Containment Procedures:

Stop the flow of material, if this can be done without risk. Wear appropriate protective equipment and clothing during clean up.

Clean-Up Procedures:

Absorb spill with inert material. Neutralize with dilute inorganic acid. Shovel material into appropriate container for disposal. Dispose of collected material according to local, state, and federal regulations.

***** Section 7 - Handling and Storage *****

Handling Procedures:

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists of this product. This product is for industrial use only. Use with adequate ventilation. Do not take internally.

Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials such as oxidizing materials and strong acids. Do not freeze. Avoid prolonged storage at elevated temperatures.

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

Exposure Guidelines:

A: General Product Information

Follow all applicable exposure limits.

B: Component Exposure Limits

Ammonium Hydroxide (001336-21-6) [Ammonia (007664-41-7)]

ACGIH TLV: 35 ppm STEL (as Ammonia)

ACGIH TLV: 25 ppm TWA (as Ammonia)

OSHA PEL: 50 ppm TWA (as Ammonia)

DFG MAK 50 ppm (35 mg/m³) (as Ammonia)

NIOSH REL: 25 ppm (18 mg/m³) TWA (as Ammonia)

NIOSH REL: 35 ppm (27 mg/m³) STEL (as Ammonia)

NIOSH REL: 50 ppm CL (as Ammonium Hydroxide)

Engineering Controls:

Set up ventilation to effectively remove and prevent buildup of any vapor or mist generated from the handling of this product.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face Protective Equipment:

Wear safety glasses or chemical goggles.

Skin Protection:

Use impervious gloves. Test gloves to determine suitability for prolonged contact. Use of impervious apron and boots are recommended.

Respiratory Protection:

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

Personal Protective Equipment:

Eyewash fountains and emergency showers are required.

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

Physical State:	Liquid	Appearance:	Colorless
Odor:	Ammonia	Vapor Pressure:	N/A
Vapor Density:	N/A	Boiling Point:	>212 °F (100 °C)
Specific Gravity:	1.23 - 1.27	pH:	13 - 14
Viscosity:	ND	VOC:	ND
Solubility in Water:	Complete as prepared	Evaporation Rate:	N/A
Percent Volatile:	ND	Percent Solids:	ND

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

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Keep away from heat, ignition sources and incompatible materials (oxidizers and strong acids). If evaporated to dryness, explosion may occur due to evolution of phosphine gas.

Incompatibility:

Do not expose this product to excessive heat conditions, oxidizers or strong acids.

Decomposition Products:

Upon decomposition, this product may emit very toxic fumes of sodium oxide (Na₂O), phosphine gas, phosphorous oxides (PO_x) and ammonia.

Hazardous Polymerization:

Will not occur.

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*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Sodium Hypophosphite (007681-53-0)

Intraperitoneal LD₅₀ Mouse: 1584 mg/kg

Ammonium Hydroxide (001336-21-6)

Oral LD₅₀ Rat: 350 mg/kg

Carcinogenicity:

A: General Product Information

No information available for the product.

B: Component Carcinogenicity

No information available for the product.

Chronic Toxicity

No information available for the product.

Other Toxicological Information:

None available.

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No data available for this product. Because of the sodium acetate content of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms, aquatic systems, terrestrial organisms and terrestrial systems.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Ammonium Hydroxide (001336-21-6)

Test & Species:	Amount:	Conditions:
LC50 (24 hr) rainbow trout	0.008 mg/L	---
LC50 (96 hr) fathead minnow	8.2 mg/L	---
LC50 (48 hr) bluegill	0.024 - 0.093 mg/L	---
EC50 (48 hr) water flea	0.66 mg/L	22 °C

Environmental Fate:

No data available for this product.

*** 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.

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*** Section 14 - Transportation Information ***

US DOT Information

Proper Shipping Name Caustic Alkali Liquid, N.O.S., (Contains Ammonium Hydroxide)
Hazard Class 8
UN / NA Number UN1719
Packing Group II
Product RQ (lb)

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

No additional information available.

B: Component Analysis

This material contains one or more of the following chemicals, requiring identification under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Ammonium Hydroxide (001336-21-6)

SARA 313: form R reporting required for 0.1% De Minimis concentration

CERCLA: final RQ = 1000 pounds (454 kg)

SARA 311/312: Acute: Yes Chronic: No Fire: No Pressure: No Reactive: No

State Regulations

A: General Product Information

No information available.

B: Component Analysis - State

The following components appear on one or more of the following state Right-To-Know lists:

Component	CAS #	CA	FL	MA	MN	NJ	NY	PA	RI
Ammonium Hydroxide	001336-21-6	Yes	No	Yes	No	Yes	Yes	Yes	No

Other Regulations

A: General Product Information

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

B: Component Analysis – Inventory

Component	CAS #	TSCA	DSL	EINECS
Ammonium Hydroxide	001336-21-6	Yes	Yes	Yes
Sodium Hypophosphite	007681-53-0	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Ammonium Hydroxide	001336-21-6	1% item 96 (989)

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*** Section 16 – Other Information ***

NFPA Ratings: Health: 2 Fire: 0 Reactivity: 1 Other:
Hazard Scale: 0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe

HMIS Ratings: Health: 2 Fire: 0 Reactivity: 1 Personal Protection:
Hazard Scale: 0 = Minimal, 1 = Slight, 2 = Moderate, 3 = Serious, 4 = Severe, * = Chronic hazard

MSDS Change History:

5/08/03: Rev.02; MSDS as issued by Chemtech Finishing Systems.
1/18/05: Chemtech Finishing Systems acquired by Heatbath Corporation.
3/30/05: Rev.03; Chemtech MSDS issued under new manufacturer: Heatbath Corporation.
Sec.1 - Manufacturer Information Updated
Sec.16 - MSDS Change History section added
11/17/06: Rev.04; Sec.2 - Information Updated.
Sec. 3, 5, 6, 15, 16 - information corrected or removed.

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 CHEMSHIELD® 2500SR-C.