

# Material Safety Data Sheet

Product Trade Name: **DIVERSCALE 299**

ID: H247

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

Product Trade Name: DIVERSCALE 299

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

CAS #	Component	Percent
1310-73-2	Sodium hydroxide	>60
7722-64-7	Potassium permanganate	10-30
497-19-8	Sodium carbonate	1-10

### Component Related Regulatory Information

This product may be regulated, have exposure limits or other information identified as the following: Manganese (7439-96-5), Manganese and its compounds (except manganese hydroxide).

### Additional Information:

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

## \*\*\* Section 3 - Hazards Identification \*\*\*

### Emergency Overview:

DANGER -- CORROSIVE! OXIDIZER! Powder. Contact with this material will cause burns to the skin, eyes and mucous membranes.

### Eye Contact:

This product is severely irritating to the eyes and may cause irreversible damage including burns and blindness.

### Skin Contact:

Corrosive to the skin. Contact with the skin or mucous membranes may cause severe irritation and burns. This product may discolor the skin. This product contains a component that may cause allergic skin reactions.

### Skin Absorption:

None expected.

### Ingestion:

This product may produce corrosive damage to the gastrointestinal tract if it is swallowed.

### Inhalation:

Inhalation of dusts of this product may cause severe irritation and burns to the respiratory tract.

### Medical Conditions Aggravated by Exposure:

Pre-existing eye, skin and respiratory disorders.

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

### Eye Contact:

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

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## Skin Contact:

Immediately take off all contaminated clothing. For skin contact, flush with large amounts of water. Seek immediate medical attention.

## Ingestion:

If the material is swallowed, get immediate medical attention or advice -- Do not induce vomiting. Give one to two glasses of water or milk. Never give anything by mouth to a victim who is unconscious or is having convulsions.

## Inhalation:

If inhaled, immediately remove the affected person to fresh air.

## First Aid: Notes to Physician

No additional information available.

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

**Flash Point:** Not applicable

**Method Used:** Not applicable

**Flammability Classification:** Non-flammable

**Upper Flammable Limit (UFL):** Not applicable

**Lower Flammable Limit (LFL):** Not applicable

## Fire & Explosion Hazards:

This product is an oxidizing agent and is a serious fire and explosion risk. Do not permit contact with combustible, organic, or other oxidizable materials.

## Decomposition Products:

Irritating and toxic gases or fumes may be released during a fire.

## Extinguishing Media:

Use water only. Do not use dry chemicals, carbon dioxide, or foam.

## Fire-Fighting Instructions:

Firefighters should wear full protective clothing including self contained breathing apparatus.

## \* \* \* 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 is without risk. Wear appropriate protective equipment and clothing during clean-up.

## Clean-Up Procedures:

Sweep up or gather material and place in appropriate container for disposal. Wash spill area thoroughly. Wear appropriate protective equipment during cleanup. Dispose of collected material according to regulation.

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

## Handling Procedures:

Do not get this material in your eyes, on your skin, or on your clothing. Wash thoroughly after handling. Use this product with adequate ventilation. Do not breathe fumes or dust from this material. NEVER ADD WATER TO PRODUCT. For dilutions, add product slowly to water while stirring. Use caution; heat may be generated. For industrial use only. Do not take internally.

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## Storage Procedures:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store between 20 °F and 90 °F.

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

### Exposure Guidelines:

#### A: General Product Information

Follow all applicable exposure limits.

#### B: Component Exposure Limits

##### Sodium hydroxide (1310-73-2)

ACGIH: C 2 mg/m3

OSHA: C 2 mg/m3

NIOSH: C 2 mg/m3

##### Potassium permanganate (7722-64-7)

ACGIH: as Mn, 0.2 mg/m3 TWA (related to Manganese)

OSHA: fume, as Mn: 1 mg/m3 TWA (related to Manganese)  
compounds, as Mn: C 5 mg/m3 (related to Manganese)

NIOSH: as Mn: 1 mg/m3 TWA (related to Manganese)  
3 mg/m3 STEL (related to Manganese)

### Engineering Controls:

Ventilation should effectively remove and prevent buildup of any dust generated from the handling of this product.

## PERSONAL PROTECTIVE EQUIPMENT

### Eyes/Face Protective Equipment:

Wear chemical goggles and face shield.

### Skin Protection:

Use impervious gloves. Gloves should be tested 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 dust, appropriate NIOSH/MSHA respiratory protection must be provided.

### Personal Protective Equipment:

Eyewash fountains and emergency showers are required.

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

<b>Physical State:</b>	Solid	<b>Appearance:</b>	Purple, granular
<b>Odor:</b>	Mild	<b>Vapor Pressure:</b>	Not determined
<b>Vapor Density:</b>	Not applicable	<b>Boiling Point:</b>	Not applicable
<b>Specific Gravity:</b>	70 lb./ft3 (bulk density)	<b>pH:</b>	Not determined
<b>Viscosity:</b>	Not applicable	<b>VOC:</b>	Not determined
<b>Solubility Water:</b>	Appreciable	<b>Evaporation Rate:</b>	Not applicable
<b>Percent Volatile:</b>	Not applicable	<b>Percent Solids:</b>	Not determined

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

### Chemical Stability:

Stable under normal conditions.

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## Conditions to Avoid:

Keep away from heat, sparks, or open flame.

## Incompatibility:

This product reacts with acids. Adding water to this product may cause localized overheating and splattering. Avoid contact with organic materials, oils, greases, and any oxidizable materials. Incompatible with alcohols, arsenites, iodides, acids, charcoal, organic substances, generally ferric or mercurous salts, hypophosphites, hyposulfites, sulfites, peroxides, and oxalates.

## Decomposition Products:

May liberate chlorine gas if mixed with hydrochloric acid. Upon decomposition, this product may yield oxides of nitrogen and ammonia, carbon dioxide, carbon monoxide and other low molecular weight hydrocarbons.

## Hazardous Polymerization:

Will not occur.

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

### Acute Toxicity:

#### A: General Product Information

No information available for the product.

#### B: Component Analysis - LD50/LC50

##### Potassium permanganate (7722-64-7)

Oral LD50 Rat : 1090 mg/kg

Oral LD50 Mouse : 2157 mg/kg

##### Sodium carbonate (497-19-8)

Inhalation LC50 Rat : 2300 mg/m<sup>3</sup>/2H

Inhalation LC50 Mouse : 1200 mg/m<sup>3</sup>/2H

Oral LD50 Rat : 4090 mg/kg

Oral LD50 Mouse : 6600 mg/kg

### Carcinogenicity:

#### A: General Product Information

No information available for the product.

#### B: Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, OSHA, NIOSH, or NTP.

### Chronic Toxicity

Potassium permanganate is corrosive to the eyes, skin, mucous membranes and respiratory tract. Exposure can also lead to pulmonary edema, liver and kidney damage with delayed symptom onset. It has been estimated that the lethal dose of potassium permanganate is 10 grams for humans, with death possibly being delayed for up to one month. In rare instances, potassium permanganate has been shown to induce methemoglobin formation which can lead to hypoxia, headache, fatigue, and at very high levels coma and death. This compound has been shown to cause adverse effects to the nervous and reproductive systems.

### Other Toxicological Information:

None available.

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

### Ecotoxicity:

#### A: General Product Information

No data available for this product.

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

##### Potassium permanganate (7722-64-7)

Test & Species		Conditions
LC50 (96 hr) goldfish	3.6 mg/L.	
LC50 (24 hr) striped bass	1.5-5.0 mg/L.	Static.

##### Sodium carbonate (497-19-8)

Test & Species		Conditions
LC50 (96 hr) bluegill	320 mg/L.	Static.

### 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 responsibly 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

Proper Shipping Name	Oxidizing Solid, Corrosive, N.O.S. (Contains Potassium Permanganate, Sodium Hydroxide)
Hazard Class	5.1
UN / NA Number	UN3085
Packing Group	II
Placard	5.1, 8
Product RQ (lb)	370

## \*\*\* 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 required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

##### Sodium hydroxide (1310-73-2)

CERCLA: final RQ = 1000 pounds (454 kg)

##### Potassium permanganate (7722-64-7)

SARA 313: form R reporting required for 1.0% de minimis concentration (related to Manganese)

CERCLA: final RQ = 100 pounds (45.4 kg)

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

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## State Regulations

### A: General Product Information

No additional information available.

### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Sodium hydroxide	1310-73-2	Yes	Yes	Yes	Yes	Yes	Yes
Potassium permanganate (1 related to Manganese)	7722-64-7	Yes	Yes	Yes	Yes <sup>1</sup>	Yes	Yes

## 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
Sodium hydroxide	1310-73-2	Yes	Yes	Yes
Potassium permanganate	7722-64-7	Yes	Yes	Yes
Sodium carbonate	497-19-8	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
Sodium hydroxide	1310-73-2	1% item 1442 (998)
Potassium permanganate	7722-64-7	1% item 1341 (1359)
Sodium carbonate	497-19-8	1% item 1431 (392)

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

**NFPA Ratings: Health: 3 Fire: 0 Reactivity: 1 Other: OX**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**HMIS Ratings: Health: 3\* Fire: 0 Reactivity: 1 Pers. Prot.:**

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

### MSDS Change History:

5/20/03: Rev.03; MSDS as issued by Chemtech Finishing Systems.

1/18/05: Chemtech Finishing Systems acquired by Heatbath Corporation.

3/30/05: Rev.04; Chemtech MSDS issued under new manufacturer: Heatbath Corporation.

Sec.1 - Manufacturer Information Updated

Sec.16 - MSDS Change History section added

Sec.16 - Contact Information Updated

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**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.

**Contact:** Jeff Szotek  
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This is the end of MSDS for DIVERSCALE 299.