

BKD-80

# Safety Data Sheet

Issue Date: 01-Apr-2010

Revision Date: 28-Apr-2015

Version 1

## 1. IDENTIFICATION

### Product Identifier

Product Name MSI DESCALER HD

### Other means of identification

SDS # MSI-007

### Recommended use of the chemical and restrictions on use

Recommended Use Cleaning product. For industrial and commercial use only.

### Details of the supplier of the safety data sheet

#### Supplier Address

Manufacturer's Service Inc.  
9715 Klingerman Ave.  
So. El Monte CA, 91791

### Emergency Telephone Number

Company Phone Number Phone: 323-283-1013

Fax: 626-443-1054

Emergency Telephone (24 hr) Chemtrec 1-800-424-9300 (North America) 1-703-527-3887 (International)

## 2. HAZARDS IDENTIFICATION

Appearance Straw colored powder

Physical State Solid

### Classification

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 1
Reproductive toxicity	Category 1B

### Hazards Not Otherwise Classified (HNOC)

May be harmful if swallowed

### Signal Word

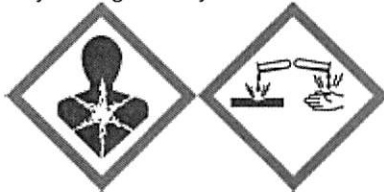
Danger

### Hazard Statements

Causes skin irritation

Causes serious eye damage

May damage fertility or the unborn child



**Precautionary Statements - Prevention**

Obtain special instructions before use  
 Do not handle until all safety precautions have been read and understood  
 Use personal protective equipment as required  
 Wash face, hands and any exposed skin thoroughly after handling

**Precautionary Statements - Response**

If exposed or concerned: Get medical advice/attention  
 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 or doctor/physician  
 IF ON SKIN: Wash with plenty of soap and water  
 Take off contaminated clothing and wash it before reuse  
 If skin irritation occurs: Get medical advice/attention

**Precautionary Statements - Storage**

Store locked up

**Precautionary Statements - Disposal**

Dispose of contents/container to an approved waste disposal plant

**Other Hazards**

Harmful to aquatic life with long lasting effects

<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Chemical Name	CAS No	Weight-%
Sodium bisulfate	7681-38-1	Proprietary
Sulfamic Acid	5329-14-6	Proprietary
Borax	1303-96-4	Proprietary

\*\*If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.\*\*

<b>4. FIRST-AID MEASURES</b>
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**First Aid Measures**

<b>Eye Contact</b>	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 or doctor/physician.
<b>Skin Contact</b>	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
<b>Inhalation</b>	Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
<b>Ingestion</b>	Rinse mouth thoroughly with water. Do not induce vomiting. Drink 1 or 2 glasses of water. Seek medical attention immediately.

**Most important symptoms and effects**

<b>Symptoms</b>	Causes skin irritation. Causes serious eye damage. Inhalation may cause irritation of nasal passages and respiratory tract. Existing skin and lung disorders may be aggravated by overexposure.
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**Indication of any immediate medical attention and special treatment needed**

<b>Notes to Physician</b>	Treat symptomatically.
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## 5. FIRE-FIGHTING MEASURES

### Suitable Extinguishing Media

Water spray (fog). Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical. Dike fire-control water for later disposal.

**Unsuitable Extinguishing Media** Not determined.

### Specific Hazards Arising from the Chemical

Not determined.

### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers exposed to fire with water. Do not get water inside containers or in contact with substance.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

<b>Personal Precautions</b>	Only trained and properly protected personnel must be involved in clean-up operations. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate affected area. Avoid creating dust.
<b>Environmental Precautions</b>	Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

### Methods and material for containment and cleaning up

<b>Methods for Containment</b>	Prevent further leakage or spillage if safe to do so.
<b>Methods for Clean-Up</b>	Carefully sweep, scoop or vacuum and place in suitable container. Avoid generating dust. If possible, complete cleanup on a dry basis. Place collected waste in DOT approved containers for disposal.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

<b>Advice on Safe Handling</b>	Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Use personal protection recommended in Section 8. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid generation of dust. Do not breathe dust. Use only in well-ventilated areas. Wash face, hands, and any exposed skin thoroughly after handling. Remove contaminated clothing and wash before reuse.
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### Conditions for safe storage, including any incompatibilities

<b>Storage Conditions</b>	Keep container tightly closed and store in a cool, dry and well-ventilated place. Store away from incompatible materials. Maintain air gap between stacks/pallets. Keep away from moisture to prevent caking. Protect from extreme temperatures. Store locked up. Store away from heat, sparks, open flame or any other ignition source. Keep out of the reach of children.
<b>Packaging Materials</b>	Empty containers retain product residue and can be hazardous.
<b>Incompatible Materials</b>	Avoid contact with strong reducing agents which can generate hydrogen gas and can create explosive hazard.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Borax 1303-96-4	STEL: 6 mg/m <sup>3</sup> inhalable fraction TWA: 2 mg/m <sup>3</sup> inhalable fraction	(vacated) TWA: 10 mg/m <sup>3</sup>	TWA: 5 mg/m <sup>3</sup>

### Appropriate engineering controls

**Engineering Controls** Apply technical measures to comply with the occupational exposure limits. Eyewash stations. Showers.

### Individual protection measures, such as personal protective equipment

**Eye/Face Protection** Chemical goggles in compliance with OSHA regulations.

**Skin and Body Protection** Wear protective gloves and protective clothing.

**Respiratory Protection** Ensure adequate ventilation, especially in confined areas. In case of inadequate ventilation wear respiratory protection. NIOSH/OSHA approved dust mask.

**General Hygiene Considerations** Handle in accordance with good industrial hygiene and safety practice. Wash face, hands and any exposed skin thoroughly after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Solid	<b>Odor</b>	Not determined
<b>Appearance</b>	Straw colored powder	<b>Odor Threshold</b>	Not determined
<b>Color</b>	Straw		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	Not determined	
Melting Point/Freezing Point	Not determined	
Boiling Point/Boiling Range	Not determined	
Flash Point	Not determined	
Evaporation Rate	Not determined	
Flammability (Solid, Gas)	Not determined	
Upper Flammability Limits	Not determined	
Lower Flammability Limit	Not determined	
Vapor Pressure	Not determined	
Vapor Density	Not determined	
Specific Gravity	Not determined	
Water Solubility	Partially soluble	
Solubility in other solvents	Not determined	
Partition Coefficient	Not determined	
Auto-ignition Temperature	Not determined	
Decomposition Temperature	Not determined	
Kinematic Viscosity	Not determined	
Dynamic Viscosity	Not determined	
Explosive Properties	May form explosive mixtures with air	
Oxidizing Properties	Not determined	

## 10. STABILITY AND REACTIVITY

**Reactivity**

Not reactive under normal conditions. If wetted, borax reacts exothermically, forming hydrated sodium borates.

**Chemical Stability**

Stable under recommended storage conditions.

**Possibility of Hazardous Reactions**

None under normal processing.

**Conditions to Avoid**

See Sec. 7 Handling & Storage.

**Incompatible Materials**

Avoid contact with strong reducing agents which can generate hydrogen gas and can create explosive hazard.

**Hazardous Decomposition Products**

None known based on information supplied.

## 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure****Product Information**

<b>Eye Contact</b>	Causes serious eye damage.
<b>Skin Contact</b>	Causes skin irritation.
<b>Inhalation</b>	Avoid inhalation of dust.
<b>Ingestion</b>	Do not ingest.

**Component Information**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Sodium bisulfate 7681-38-1	= 2490 mg/kg ( Rat )	-	-
Sulfamic Acid 5329-14-6	= 1450 mg/kg ( Rat )	-	-
Borax 1303-96-4	= 3493 mg/kg ( Rat ) = 2660 mg/kg ( Rat )	> 10000 mg/kg ( Rabbit )	-

**Information on physical, chemical and toxicological effects**

**Symptoms** Please see section 4 of this SDS for symptoms.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Carcinogenicity** Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

**Reproductive toxicity** May damage fertility or the unborn child.

**Numerical measures of toxicity**

Not determined

## 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects. Large concentrations of borax can pose danger to some plants ; avoid discharge to environment.

**Component Information**

Chemical Name	Algae/aquatic plants	Fish	Toxicity to microorganisms	Crustacea
Sodium bisulfate 7681-38-1				190: 48 h Daphnia magna mg/L EC50
Sulfamic Acid 5329-14-6		14.2: 96 h Pimephales promelas mg/L LC50 static		

**Persistence/Degradability**

Biodegradable.

**Bioaccumulation**

Not determined.

**Mobility**

Not determined

**Other Adverse Effects**

Not determined

### 13. DISPOSAL CONSIDERATIONS

**Waste Treatment Methods****Disposal of Wastes**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated Packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations. Empty containers can retain product residues and shall be disposed in accordance with the provisions proposed for the product.

**California Hazardous Waste Status**

Chemical Name	California Hazardous Waste Status
Borax 1303-96-4	Toxic

### 14. TRANSPORT INFORMATION

**Note**

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

**DOT**

UN/ID No	UN3260
Proper Shipping Name	Corrosive solids, acidic, inorganic n.o.s. (Sodium Bisulfate & Sulfamic Acid)
Hazard Class	8
Packing Group	III

**IATA**

UN/ID No	UN3260
Proper Shipping Name	Corrosive solids, acidic, inorganic n.o.s. (Sodium Bisulfate & Sulfamic Acid)

Hazard Class	8
Packing Group	III

**IMDG**

UN/ID No	UN3260
Proper Shipping Name	Corrosive solids, acidic, inorganic n.o.s. (Sodium Bisulfate & Sulfamic Acid)
Hazard Class	8
Packing Group	III
Marine Pollutant	This material may meet the definition of a marine pollutant

<b>15. REGULATORY INFORMATION</b>
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International Inventories

Chemical Name	TSCA	DSL	NDSL	EINECS	ELINCS	ENCS	IECSC	KECL	PICCS	AICS
Sodium bisulfate	Present	X		Present		Present	X	Present	X	X
Sulfamic Acid	Present	X		Present		Present	X	Present	X	X
Borax	Present	X				Present	X	Present	X	X

**Legend:***TSCA - United States Toxic Substances Control Act Section 8(b) Inventory**DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List**EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances**ENCS - Japan Existing and New Chemical Substances**IECSC - China Inventory of Existing Chemical Substances**KECL - Korean Existing and Evaluated Chemical Substances**PICCS - Philippines Inventory of Chemicals and Chemical Substances**AICS - Australian Inventory of Chemical Substances*US Federal Regulations**SARA 313**

Not determined

US State RegulationsU.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Sulfamic Acid 5329-14-6	X		
Borax 1303-96-4	X	X	X

<b>16. OTHER INFORMATION</b>
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<u>NFPA</u>	Health Hazards 2	Flammability 0	Instability 0	Special Hazards ACID
<u>HMIS</u>	Health Hazards Not determined	Flammability Not determined	Physical Hazards Not determined	Personal Protection Not determined

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Revision Note:	New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet