



# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Material Name** ICI-3240  
**Revision Date** 1/16/2014  
**Version #** 01  
**Product Use** Biocide  
**Manufacturer / Supplier** FTS International Services, LLC  
2500 HWY 62 West  
Chickasha, OK 73018  
US  
General information: 1-405-222-2300  
**Emergency** 24 Hour Emergency: INFOTRAC: 1-800-535-5053

## 2. Hazards Identification

**Physical State** Liquid  
**Appearance** Pale yellow liquid.  
**Emergency Overview** Danger: Corrosive liquid. May cause severe skin irritation. May cause severe eye, nose, throat, and lung irritation or burns. Harmful by inhalation and if swallowed.  
**OSHA regulatory status** Not available.  
**Routes of exposure**  
**Eyes** This product is considered to be a primary eye irritant. Causes severe irritation and burns. Danger of very serious irreversible effects.  
**Skin** A single, prolonged exposure is not likely to result in the material being absorbed through skin in harmful amounts. Causes irritation, possible burns on prolonged contact.  
**Inhalation** Avoid breathing vapors or mists. Inhalation will cause respiratory tract irritation or burns of the mucous membranes.  
**Ingestion** Ingestion is not considered a potential route of exposure. Harmful if swallowed. Ingestion will cause irritation of the mouth, throat, and esophagus.  
**Potential environmental effects** Not available.

## 3. Composition / Information on Ingredients

Components	CAS #	Percent
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	533-74-4	24.0
Sodium Hydroxide	1310-73-2	<4.0

**Composition comments** All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First Aid Measures

### First aid procedures

**Eye Contact** Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.  
**Skin Contact** Remove contaminated clothing and shoes. Wash affected area immediately with large amounts of soap and water. Get medical attention if irritation develops or persists.  
**Inhalation** Although this product is not known to cause respiratory problems, if breathing is difficult, remove to fresh air and provide oxygen. If not breathing, give artificial respiration. Get medical attention of cough or other symptoms develop.  
**Ingestion** If swallowed, do NOT induce vomiting. Give water or milk to dilute. Never give anything by mouth to an unconscious person. Contact a physician.  
**Notes to physician** Probable mucosal damage may contraindicate the use of gastric lavage. All treatments should be based on observed signs and symptoms of distress in the patient. Treat symptomatically.

## 5. Fire Fighting Measures

### Flammable Properties

Not available.

### Extinguishing media

#### Suitable extinguishing media

Water, carbon dioxide, foam or dry powder.

#### Unsuitable extinguishing media

Not available.

#### Specific Hazards arising from the Chemical

No known unusual hazards in a fire/explosion situation.

### Firefighting equipment / instructions

As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Dike and collect water used to fight fire. Contaminated extinguishing water must be disposed of in accordance with applicable regulations.

### Specific Methods

Not available.

### Hazardous combustion products

Oxides of carbon, nitrogen and sulfur.

## 6. Accidental Release Measures

### Personal precautions

Wear appropriate personal protective equipment. Stop the source of the leak or release. Clean up releases as soon as possible, observing precautions in Exposure Controls/Personal Protection. Contain liquid to prevent further contamination of soil, surface water or ground water.

### Methods for cleaning up

Small spills: Contain spilled material. Absorb with inert material. Transfer to suitable containers for disposal.

Large spills: Warning. Avoid runoff into storm sewers, municipal sewers, and open bodies of water and ditches which lead to waterways. This product is toxic to fish. Contain spilled liquid with sand or earth.

## 7. Handling and Storage

### Handling

Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Avoid contact with skin and eyes. Avoid breathing mists. Wash hands thoroughly after handling.

### Storage

Corrosive liquid. Store in a secure area. Wash hands thoroughly after handling. Keep container tightly closed. Avoid extreme temperatures. Keep in a cool place away from acids.

Minimum storage temp: 35.1°F

Maximum storage temp: 131 °F

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

#### US. OSHA Table Z-1 Limits for Air Contaminates (29 CFR 1910.1000)

Components	PEL	
	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.
Sodium Hydroxide	Not available.	2

**Canada. Alberta OELs (Occupational Health Safety Code, Schedule 1, Table 2)**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

**Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

**Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents) Components**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

**Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) Components**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

**Mexico. Occupational Exposure Limit Values**

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.	Not available.	Not available.	Not available.
Sodium Hydroxide	Not available.	Not available.	Not available.	Not available.

**Engineering controls** Good general ventilation should be sufficient to control airborne levels. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

**Personal protective equipment**

<b>Eye / face protection</b>	Appropriate eye protection, including safety goggles, face shield, or a full face respirator, is required
<b>Skin protection</b>	Material is a potential skin sensitizer. Wear protective gloves (Nitrile, Butyl Rubber) to minimize skin contamination. Selection of specific items such as gloves, boots, apron or full body suit will depend on operation.
<b>Respiratory protection</b>	When there is potential for airborne exposures, wear NIOSH/MSHA approved respiratory protection.
<b>General hygiene consideration</b>	Not available.

**9. Physical and Chemical Properties**

**Appearance:** Pale yellow liquid

<b>Color</b>	Pale yellow
<b>Odor</b>	Pungent
<b>Odor threshold</b>	Not available.
<b>Physical State</b>	Liquid
<b>Form</b>	Liquid
<b>pH</b>	13.6
<b>Melting point</b>	Not available.
<b>Freezing point</b>	-10°F (-23.3°C)
<b>Boiling point</b>	212° F (100°C) @ 760 mmHg
<b>Flash point</b>	>201.0°F (>93.9°C) PMCC
<b>Evaporation rate</b>	<1 (Butyl Acetate = 1)
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Specific Gravity</b>	1.16 @ 77°F (25°C)
<b>Solubility (water)</b>	Complete
<b>Partition coefficient (n-octanol/water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Bulk Density</b>	9.66 lb/gal
<b>VOC</b>	7.2 cPs @ 75°F (23.89°C)
<b>Viscosity</b>	Not available.
<b>Percent volatile</b>	Not available.

## 10. Chemical Stability Reactivity Information

<b>Chemical Stability</b>	Stable at ambient conditions.
<b>Conditions to avoid</b>	None known.
<b>Incompatible material</b>	Avoid contact with acids and oxidizing agents. May generate heat, spattering or boiling and the release of toxic fumes.
<b>Hazardous decomposition products</b>	Oxides of carbon, nitrogen and sulfur.
<b>Possibility of hazardous reaction</b>	Dimethylamine, oxides of sulfur, H <sub>2</sub> S, formaldehyde or CS <sub>2</sub> are formed under acidic conditions. Under alkaline conditions, decomposition products are sodium methyldithiocarbamate, formate and methanol.

## 11. Toxicology Information

### Toxicological Data

Components	Test Results
Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Eye effects: Rabbit- extremely irritating. Skin effects: Rabbit- severe skin irritant. Acute Oral LD50: Rat: 1650 mg/kg
Sodium Hydroxide	Not available.

<b>Sensitization</b>	Suspected of causing allergic dermatitis
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**Carcinogenicity**

Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.
Sodium Hydroxide	Not available.

<b>Epidemiology</b>	Not available.
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<b>Mutagenicity</b>	Not available.
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<b>Reproductive effects</b>	Not available.
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<b>Teratogenicity</b>	Not available.
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<b>Further Information</b>	Not available.
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## 12. Ecological Information

### Ecotoxicological data

Components	Test Results
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Dazomet (Tetrahydro-3, 5-dimethyl-2H-1, 3, 5-thiadiazine-2-thione.	Not available.
Sodium Hydroxide	Not available.

<b>Ecotoxicity</b>	Not available.
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<b>Persistence and degradability</b>	Not available.
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<b>Bioaccumulation / Accumulation</b>	Not available.
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<b>Mobility in environmental media</b>	Not available.
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<b>Partition coefficient (n-octanol/water)</b>	Not available.
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## 13. Disposal Considerations

<b>Waste codes</b>	D002 – Corrosive
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<b>Disposal instructions</b>	Avoid disposal into waste treatment facilities. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.
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<b>Contaminated packaging</b>	Dispose of in the same manner as the contents.
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## 14. Transport Information

### DOT

<b>UN number</b>	UN3266
<b>Proper shipping name</b>	Corrosive liquid, basic, inorganic, N.O.S.(Sodium Hydroxide 4%)
<b>Hazard class</b>	8
<b>Packing Group</b>	II
<b>Labels required</b>	
<b>DOT reportable quantity</b>	1000
<b>Additional information</b>	
<b>Special provisions</b>	
<b>Packaging exceptions</b>	
<b>Packaging non bulk</b>	
<b>Packaging bulk</b>	
<b>ERG number</b>	

### IATA

<b>UN number</b>	
<b>Proper shipping name</b>	Not available.

Hazard class  
Packing group  
Additional information  
ERG code

#### IMDG

UN number  
Proper shipping name Not available.  
Hazard class  
Packing group  
EmS No  
IMDG Additional information:

## 15. Regulatory Information

#### US federal regulation

CERCLA (Superfund) Reportable Quantity: Sodium Hydroxide: 1000 lb

#### Superfund amendments and Reauthorization Act of 1986 (SARA)

Hazard Categories	Immediate Hazard:	Yes
	Delayed Hazard:	Yes
	Fire Hazard:	No
	Pressure Hazard:	No
	Reactivity Hazard:	No

Section 313: Dazomet

#### Inventory Status

Country	Inventory Name	On Inventory *
Australia	AICS	No
Canada	DSL	Yes
Canada	NDSL	No
China	IECSC	No
Europe	EINECS	No
Europe	ELINCS	No
Japan	ENCS	No
Korea	ECL	No
New Zealand	NZI	No
United States / Puerto Rico	TSCA	Yes
Phillipines	PICCS	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

WHMIS Information Not available.  
State Regulation Not available.

## 16. Other Information

Further Information HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings**

Health: 3  
Flammability: 1  
Physical Hazard: 0

A HMIS® rating including an \* indicates a chronic hazard.

**NFPA ratings**

Health: 3  
Flammability: 1  
Instability: 0

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