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## MATERIAL SAFETY DATA SHEET 26.7.04

## SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: THAWZONE

GENERAL USE: Chemical additive

PRODUCT DESCRIPTION: Clear liquid, characteristic alcohol odor



MANUFACTURER'S NAME

Highside Chemicals, Inc.

DATE PREPARED: May 3, 2004

SUPERSEDES: February 04, 2004

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ADDRESS (NUMBER, STREET, P.O. BOX)

11114 Reichhold Road

TELEPHONE NUMBER FOR INFORMATION

(228) 896-9220

(CITY, STATE AND ZIP CODE)

Gulfport, MS 39503

COUNTRY

USA

EMERGENCY TELEPHONE NUMBER

CHEM - TEL (800) 255-3924 Outside USA (813) 248-0585

DISTRIBUTOR'S NAME

Same

ADDRESS (NUMBER, STREET, P.O. BOX)

TELEPHONE NUMBER FOR INFORMATION

(CITY, STATE AND ZIP CODE)

COUNTRY

EMERGENCY TELEPHONE NUMBER

## SECTION 2 - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS	CAS #	%	OSHA PEL		ACGIH TWA		SARA TITLE III	RQ LBS
			PPM	MG/M <sup>3</sup>	PPM	MG/M <sup>3</sup>		
Ethanol	64-17-5	90 - 98	1000	1900	1000			
Isopropyl alcohol	67-63-0	3 - 7	400	980	400			

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## SECTION 3 - HAZARDS IDENTIFICATION

## EMERGENCY OVERVIEW

Colorless flammable liquid, potentially hazardous vapors. Can cause eye and skin irritation upon contact. Inhalation of vapors can cause anesthetic effect leading to death in poorly ventilated areas. Hazard symbols for this product - F, XI Risk Phrases - R11 20 36 38

## POTENTIAL HEALTH EFFECTS

INHALATION: High concentrations are irritating to the respiratory tract; may cause headache, dizziness, nausea, vomiting and malaise.

SKIN: Brief contact may cause slight irritation; prolonged contact may cause moderate reddening, swelling and possible necrosis.

EYES: Contact causes severe irritation and pain associated with redness and swelling of the conjunctiva.

INGESTION: Moderately toxic; may cause headache, dizziness, diarrhea and general weakness; large doses may result in red blood cell hemolysis.

CARCINOGENICITY

NTP?

No

IARC MONOGRAPHS?

No

OSHA REGULATED?

No

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### SECTION 4 - FIRST AID MEASURES

**INHALATION:** Remove affected person to fresh air; provide oxygen if breathing is difficult; if affected person is not breathing, administer CPR and seek emergency medical attention.

**SKIN:** Remove contaminated clothing; wash affected area with soap and water; launder contaminated clothing before reuse; if irritation persists, seek medical attention.

**EYES:** Remove contact lenses. Flush eyes with clear running water for 15 minutes while holding eyelids open; if irritation persists, seek medical attention.

**INGESTION:** Give two glasses of water for dilution; induce vomiting by sticking fingers down throat; never give anything by mouth to an unconscious person; seek medical attention.

### SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT (METHOD USED)  
60° F ( 15.6° C) PMCC

FLAMMABLE LIMITS

LEL: 3.3%

UEL: 19.0%

AUTOIGNITION TEMPERATURE: Not determined

NFPA CLASS: 1B

**GENERAL HAZARDS:** Product is flammable. Products of combustion include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

#### EXTINGUISHING MEDIA

Carbon dioxide, water, water fog, dry chemical, chemical foam

#### FIRE FIGHTING PROCEDURES

Self - contained respiratory equipment; cool containers to prevent pressure buildup and possible explosion when exposed to extreme heat.  
Caution - material is flammable!

#### UNUSUAL FIRE AND EXPLOSION HAZARDS

Closed containers can explode due to buildup of pressure when exposed to extreme heat. Vapors may cause a flash fire or ignite explosively. Vapors may travel a considerable distance to a source of ignition and flash back.

#### HAZARDOUS COMBUSTION PRODUCTS

Smoke, fumes, oxides of carbon

### SECTION 6 - ENVIRONMENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** CAUTION - FLAMMABLE - Evacuate and ventilate area; remove all sources of sparks, ignition and open flames; confine and absorb into approved absorbent; place material into approved containers for disposal; do not wash to sewer or waterway.

### SECTION 7 - HANDLING AND STORAGE

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:** Keep container closed when not in use; protect containers from abuse; protect from extreme temperatures. CAUTION - FLAMMABLE - keep away from all sources of ignition. "Empty" containers may contain residue which may form explosive vapors. Do not weld or cut near empty container that has not been professionally reconditioned. Use non-sparking tools when opening and closing containers. Maintain well ventilated work areas to minimize exposure when handling this material.

### SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

#### ENGINEERING CONTROLS

The use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment. See Section 2 for Component Exposure Guidelines.

#### PERSONAL PROTECTION:

**RESPIRATORY PROTECTION (SPECIFY TYPE):** None required while threshold limits (Section 2) are kept below maximum allowable concentrations; if TWA exceeds limits, NIOSH approved respirator must be worn. Refer to 29 CFR 1910.134 or European Standard EN 149 for complete regulations.

**PROTECTIVE GLOVES:** Neoprene or rubber gloves with cuffs.

**EYE PROTECTION:** Protective eyeglasses or chemical safety goggles. Refer to 29 CFR 1910.133 or European Standard EN166.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT:** Safety eyebath nearby

**WORK / HYGIENIC PRACTICES:** Practice safe workplace habits. Minimize body contact with this, as well as all chemicals in general.

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<b>SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES</b>				
VAPOR PRESSURE (MM Hg) 44.2 mm Hg @ 20° C		VAPOR DENSITY (AIR = 1) 1.6		
SPECIFIC GRAVITY (WATER = 1) 0.789 - 0.791		EVAPORATION RATE (WATER = 1) < 1		
SOLUBILITY IN WATER Complete		FREEZING POINT Not determined		
pH 8.5 - 9.0 (50% in Water)		APPEARANCE AND ODOR Clear liquid, characteristic alcohol odor		
BOILING POINT 173 - 176° F (78 - 80° C)		PHYSICAL STATE Liquid		
VISCOSITY Approximate that of water		VOLATILE ORGANIC COMPOUNDS (Total VOC's) 98%		
<b>SECTION 10 - STABILITY AND REACTIVITY</b>				
STABILITY		UNSTABLE: STABLE: XXX		CONDITIONS TO AVOID: Extreme temperatures, open flames, sparks
INCOMPATIBILITY (MATERIALS TO AVOID): Strong oxidizers, strong acids				
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, fumes, and smoke may be produced.				
HAZARDOUS POLYMERIZATION		MAY OCCUR: WILL NOT OCCUR: XXX		CONDITIONS TO AVOID: None
<b>SECTION 11 - TOXICOLOGICAL INFORMATION</b>				
Hazardous Ingredients	%	CAS #	LD50 of Ingredient (Specify Species and Route)	LC50 of Ingredient (Specify Species)
Ethanol	90 - 98	64-17-5	3450 mg / kg Oral - mouse	20,000 ppm / 10H Inhalation - rat
Isopropyl alcohol	3 - 7	67-63-0	5840 mg / kg Oral - rat	22,500 ppm / 4H Inhalation - rat
<b>SECTION 12 - ECOLOGICAL INFORMATION</b>				
No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.				
<b>SECTION 13 - DISPOSAL CONSIDERATIONS</b>				
WASTE DISPOSAL METHOD: Dispose of in accordance with Local, State, and Federal Regulations. This product may produce hazardous vapors or fumes in a closed disposal container creating a dangerous environment. Refer to "40 CFR Protection of Environment Parts 260 - 299" for complete waste disposal regulations. Consult your local, state, or Federal Environmental Protection Agency before disposing of any chemicals. Do not flush to sanitary sewer or waterway.				
<b>SECTION 14 - TRANSPORT INFORMATION</b>				
PROPER SHIPPING NAME: Ethanol Solutions				
DOT HAZARD CLASS / Pack Group: 3 / II		IATA HAZARD CLASS / Pack Group: 3 / II		
REFERENCE: 49 CFR 173.150, .202, .242		IMDG HAZARD CLASS: 3		
UN / NA IDENTIFICATION NUMBER: UN 1170		RID/ADR Dangerous Goods Code: 3 (3B)		
LABEL: FLAMMABLE LIQUID		UN TDG Class / Pack Group: 3 / II		
HAZARD SYMBOLS: F				
Note: Transportation information provided is for reference only. Client is urged to consult CFR 49 parts 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.				

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**SECTION 15 - REGULATORY INFORMATION****TSCA (Toxic Substance Control Act)**

Components of this product are listed on the TSCA Inventory.

**SARA TITLE III (Superfund Amendments and Reauthorization Act)**

311/312 Hazard Categories  
Acute health, flammable

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**313 Reportable Ingredients:**

None

**CERCLA (Comprehensive Response Compensation and Liability Act)**

None

**CPR (Canadian Controlled Products Regulations)**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

**IDL (Canadian Ingredient Disclosure List)**

Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.

**DSL / NDSL (Canadian Domestic Substances List / Non-Domestic Substances List)**

Components of this product identified by CAS number are listed on the DSL or NDSL and may or may not be listed in Section 2 of this document. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.

**EINECS (European Inventory of Existing Commercial Chemical Substances)**

Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

**EC Risk Phrases**

R11 Highly flammable  
R20 Harmful by Inhalation  
R36 Irritating to eyes  
R38 Irritating to skin.

**EC Safety Phrases**

S16 Keep away from sources of ignition  
S23 Do not breathe vapor  
S25 Avoid contact with eyes

S29 Do not empty into drains

**SECTION 16 - OTHER INFORMATION**

No specific notes.

**HMS HAZARD RATINGS****HEALTH**

1

0 = INSIGNIFICANT

3 = HIGH

**FLAMMABILITY**

3

1 = SLIGHT

4 = EXTREME

**REACTIVITY**

0

2 = MODERATE

**PERSONAL PROTECTIVE EQUIPMENT**

B

Safety Glasses, Gloves

**REVISION SUMMARY:**

This MSDS has been revised in the following sections:

Section 1 and 14

MSDS Prepared by: Highside Chemicals, Inc.  
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Gulfport, MS USA 39503  
(800)350-5599 Outside USA (228) 896-9221

The information contained herein is believed to be accurate but is not warranted to be so. Data and calculations are based on information furnished by the manufacturer of the product and manufacturers of the components of the product. Users are advised to confirm in advance of need that information is current, applicable and suited to the circumstances of use. Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Furthermore, vendor assumes no responsibility for injury caused by abnormal use of this material even if reasonable safety procedures are followed. Any questions regarding this product should be directed to the manufacturer of the product as described in Section 1.