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1 Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: THAWZONE

· CAS Number:

64-17-5

· EC number:

200-578-6

· Index number:

603-002-00-5

1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.

- · Application of the substance / the preparation Oil Additive, Liquid Dehydrant
- · 1.3 Details of the supplier of the Safety Data Sheet
- · Manufacturer/Supplier:

Highside Chemicals, Inc. 11114 Reichold Road Gulfport, MS 39503

Phone: (228) 896-9220

- · Further information obtainable from: Product Safety Department
- 1.4 Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC



F; Highly flammable

R11: Highly flammable.

- · Information concerning particular hazards for human and environment: Not applicable.
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the CLP regulation.

Hazard pictograms



GHS02

· Signal word Danger

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· Hazard statements

H225 Highly flammable liquid and vapour.

· Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P210

Use explosion-proof electrical/ventilating/lighting/equipment. P241

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Ground/bond container and receiving equipment. P240

P233 Keep container tightly closed. Use only non-sparking tools. P242

Take precautionary measures against static discharge. P243

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse

skin with water/shower.

In case of fire: Use for extinction: CO2, powder or water spray. P370+P378

Store in a well-ventilated place. Keep cool. P403+P235

P501 Dispose of contents/container in accordance with local/regional/national/international

regulations.

- · Hazard description:
- · WHMIS-symbols:

B2 - Flammable liquid



· NFPA ratings (scale 0 - 4)



Health = 1 Fire = 3Reactivity = 0

· HMIS-ratings (scale 0 - 4)



*1 Health = *1 3 Fire = 3

· HMIS Long Term Health Hazard Substances

64-17-5 ethanol

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB**: Not applicable.

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3 Composition/information on ingredients

· 3.1 Substances

· CAS No. Description

64-17-5 ethanol

· Identification number(s)

EC number: 200-578-6

· Index number: 603-002-00-5

4 First aid measures

- · 4.1 Description of first aid measures
- · General information: Take affected persons out into the fresh air.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately rinse with water.

If skin irritation continues, consult a doctor.

· After eye contact:

Protect unharmed eye.

Rinse opened eye for several minutes under running water.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; call for medical help immediately.

4.2 Most important symptoms and effects, both acute and delayed

Dizziness

Disorientation

Coughing

Breathing difficulty

Headache

Gastric or intestinal disorders

· Hazards

Danger of convulsion.

Danger of disturbed cardiac rhythm.

Danger of circulatory collapse.

Condition may deteriorate with alcohol consumption.

4.3 Indication of any immediate medical attention and special treatment needed

Medical supervision for at least 48 hours.

If necessary oxygen respiration treatment.

5 Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- · For safety reasons unsuitable extinguishing agents: None.
- · 5.2 Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

- 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information Cool endangered receptacles with water spray.

6 Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources.

Protect from heat.

- · **6.2 Environmental precautions:** Dilute with plenty of water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

Clean the affected area carefully; suitable cleaners are:

Warm water

· 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· 7.1 Precautions for safe handling

No special precautions are necessary if used correctly.

Keep receptacles tightly sealed.

Keep away from heat and direct sunlight.

Prevent formation of aerosols.

Avoid splashes or spray in enclosed areas.

Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage:
- · Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Store in a cool location.

Provide ventilation for receptacles.

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· Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Further information about storage conditions:

Store in cool, dry conditions in well sealed receptacles.

Keep container tightly sealed.

Protect from humidity and water.

This product is hygroscopic.

Storage Temperatures : < 86 °F / 30 °C.

· 7.3 Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical facilities: No further data; see item 7.
- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

64-17-5 ethanol

PEL (USA)	1900 mg/m³, 1000 ppm
REL (USA)	1900 mg/m³, 1000 ppm
TLV (USA)	Short-term value: 1880 mg/m³, 1000 ppm
EL (Canada)	Short-term value: 1000 ppm

EV (Canada) 1,900 mg/m³, 1,000 ppm

- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Sensibilization by the components in the glove materials is possible.

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

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· Penetration time of glove material

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The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR

Nitrile rubber, NBR

Natural rubber, NR

Rubber gloves

Neoprene gloves

- Not suitable are gloves made of the following materials: Leather gloves
- · Eye protection:

Contact lenses should not be worn.



Safety glasses

- · Body protection: Protective work clothing
- · Limitation and supervision of exposure into the environment No special requirements.
- · Risk management measures

See Section 7 for additional information.

No further relevant information available.

9 Physical and chemical properties

9.1 Information on basic physical and chemical properties			
General Information			
· Appearance: Form:	Fluid		
Colour:	Colourless		
· Odour:	Alcohol-like		
· Odour threshold:	Not determined.		
· pH-value at 20°C:	9		
· Change in condition			
Melting point/Melting range:	-174,1 / -114,5°C		
Boiling point/Boiling range:	172 °F / 78°C		
· Flash point:	61 °F / 16°C		
· Flammability (solid, gaseous):	Not applicable.		
· Ignition temperature:	797 °F / 425°C		
· Decomposition temperature:	Not determined.		
· Self-igniting:	Not determined.		
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.		
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· Explosion limits:		
Lower:	3,5 Vol %	
Upper:	15 Vol %	
· Vapour pressure at 20°C:	59 hPa	
Density at 20°C:	0,79 g/cm³	
Relative density	Not determined.	
· Vapour density	Not determined.	
Evaporation rate	Not determined.	
· Solubility in / Miscibility with		
water:	Fully miscible.	
Partition coefficient (n-octanol/	/water): Not determined.	
· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
9.2 Other information	No further relevant information available.	

10 Stability and reactivity

- · 10.1 Reactivity
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

10.3 Possibility of hazardous reactions

Flammable.

Reacts with oxidizing agents.

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

Reacts with peroxides and other radical forming substances.

Reacts with strong acids.

Forms flammable gases/fumes.

10.4 Conditions to avoid

Keep ignition sources away - Do not smoke.

Store away from oxidizing agents.

- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products:

Nitrogen oxides

Carbon monoxide and carbon dioxide

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11 Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:

64-17-5 ethanol

Oral LD50 7060 mg/kg (rat)
Inhalative LC50/4 h 20000 mg/l (rat)

- · Primary irritant effect:
- on the skin: Slight irritant effect on skin and mucous membranes.
- · on the eye: Irritating effect.
- · Sensitization: No sensitizing effects known.
- Additional toxicological information:

Irritant

Product is suspected to cause birth defects.

Vapours have narcotic effect.

Inhalation of concentrated vapours as well as oral intake will lead to anaesthesia-like conditions and headache, dizziness, etc.

· Repeated dose toxicity May cause damage to organs through prolonged or repeated exposure.

12 Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability Easily biodegradable
- 12.3 Bioaccumulative potential Does not accumulate in organisms
- 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes:

This statement was deduced from the properties of the single components.

The product may not be released into the environment without control.

Due to available data on eliminability/decomposition and bioaccumulation potential a prolonged damage of the environment is unlikely.

Water Hazard Class (Self-classification) in the concentrate.

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB**: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

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13 Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation

Must not be disposed together with household garbage. Do not allow product to reach sewage system. Can be burned with household garbage after consulting with the waste disposal facility operator and the pertinent authorities and adhering to the necessary technical regulations. Contact waste processors for recycling information.

- · Uncleaned packaging:
- · Recommendation: Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

4 Transport information		
· 14.1 UN-Number · DOT, ADR, IMDG, IATA	UN1170	
· 14.2 UN proper shipping name · DOT, IATA · ADR · IMDG	ETHANOL 1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL)	
· 14.3 Transport hazard class(es)		
· DOT		
· Class · Label	3 Flammable liquids. 3	
· ADR		
· Class · Label	3 (F1) Flammable liquids.	
· IMDG, IATA		
· Class · Label	3 Flammable liquids. 3	

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· 14.4 Packing group · DOT, ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number:	Warning: Flammable liquids. 33 F-E,S-D
· 14.7 Transport in bulk according to Ann MARPOL73/78 and the IBC Code	nex II of Not applicable.
· Transport/Additional information:	
· ADR · Tunnel restriction code	D/E
· UN "Model Regulation":	UN1170, ETHANOL (ETHYL ALCOHOL), 3, II

15 Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · United States (USA)
- ·SARA
- · Section 355 (extremely hazardous substances):

Substance is not listed.

· Section 313 (Specific toxic chemical listings):

Substance is not listed.

· TSCA (Toxic Substances Control Act):

Substance is listed.

- Proposition 65 (California):
- · Chemicals known to cause cancer:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for females:

Substance is not listed.

· Chemicals known to cause reproductive toxicity for males:

Substance is not listed.

· Chemicals known to cause developmental toxicity:

Ethanol - listing refers specifically to alcoholic beverage consumption and is not applicable for product.

64-17-5 ethanol

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(Contd. of page 10) · Carcinogenic Categories · EPA (Environmental Protection Agency) 71-36-3 butan-1-ol D · IARC (International Agency for Research on Cancer) Substance is not listed. TLV (Threshold Limit Value established by ACGIH) A3 64-17-5 ethanol · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed. OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed. · Canada Canadian Domestic Substances List (DSL) Substance is listed. · Canadian Ingredient Disclosure list (limit 0.1%) 64-17-5 ethanol · Canadian Ingredient Disclosure list (limit 1%) Substance is not listed. 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· Sources

This document was authored and reviewed by the technical and scientific staff at ChemTel Inc. Descriptions, classifications and calculations are based upon data provided by manufacturer and augmented by published data in conjunction with expert analysis by degreed scientists.

SDS Prepared by: ChemTel Inc.

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