SAFETY DATA SHEET

Section 1. Chemical Product & Company Identification

TITAN INDUSTRIAL CHEMICALS, LLC. P.O. BOX 635 GROVER, MO. 63040 636-273-9033

Product Name: LIQUID THAW

Product Use: DUST CONTROL, ICE MELTING, CONCRETE ACCELERATION, TIRE WEIGHTING

Product Code: 43700

EMERGENCY NUMBER: INFOTRAC 1-800-535-5053

Section 2. Hazards Identification

Physical Hazards: Not Classified

Health Hazards: Skin corrosion/irritation Category 2

Causes serious eye irritation Category 2A

OSHA Defined Hazards: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). 3% of this product consists of ingredient(s) of unknown acute dermal toxicity.

Label Elements:



Signal Word: Warning

Hazard Statement: Causes skin irritation and serious eye irritation.

Precautionary Statements (Prevention): Wear eye and face protection. Wear protective gloves. Wash thoroughly after handling.

Precautionary Statements (Response): If on skin: Wash skin with plenty of water. If skin irritation occurs: get medical attention/advice. Take off contaminated clothing and wash it before reuse. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists: get medical attention/advice. Specific treatment: Rinse mouth.

Precautionary Statements (Storage): No precautionary storage phrases assigned.

Precautionary Statements (Disposal): Follow local/regional/national/international regulations.

Hazards Not Otherwise Classified: None known.

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Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients:	CAS Number	% by Weight
Calcium Chloride	10043-52-4	28-36
Potassium chloride	7447-40-7	<3
Sodium chloride	7647-14-5	<2

Potassium chloride and sodium chloride are impurities from the naturally-occurring source material, brine solution.

Due to Trade Secret, the exact percentage of composition has been stated as a range. The exact identities of other ingredients has also been withheld as Trade Secret. However, they do not contribute to the identified hazards of the product and will be divulged to proper authorities in an emergency.

Section 4. First Aid Measures

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation occurs, get medical advice/attention.

Skin Contact: Wash with plenty of water. If skin irritation occurs: get medical advice/attention. Take off contaminated clothing and wash it before reuse.

Inhalation: Move to fresh air. Call a physician if symptoms develop or persist or you feel unwell.

Ingestion: If swallowed: call a poison control center/doctor if you feel unwell. Rinse mouth with water.

Most Important Symptoms/Effects, Acute & Delayed: Eye itching, stinging, redness, tearing. Skin redness, itching.

Indication of Immediate Medical Attention & Special Treatment Needed: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

Notes to physician: Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. No specific antidote.

Section 5. Fire Fighting Measures

Suitable Extinguishing Media: Treat fire with agents suitable for surrounding fire. Water fog. Foam. Dry chemical powder. Carbon dioxide.

Specific Hazards Arising From the Chemical: During fire, gases hazardous to health may be formed, hydrogen chloride gas and calcium oxide.

Special Protective Equipment and Precautions for Firefighters: Self contained breathing apparatus and full protective clothing.

Fire Fighting Equipment/Instructions: Move containers from area if you can do so without risk.

Specific Methods: Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards: No unusual fire or explosion hazards noted.

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Section 6. Accidental Release Measures

Personal Precautions, Protective Equipment & Emergency Procedures: Keep unnecessary personnel away. Keep people away from and upwind of spill. Keep out of low areas. Wear appropriate protective equipment and clothing during clean up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained.

Methods & Materials for Containment & Cleaning Up: This product is soluble in water. Large spills: stop the flow of material, if this is without risk. Dike the spilled material, where possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small spills: wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spilled material to original container.

Environmental Precautions: Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7. Handling and Storage

Precautions for Safe Handling: Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for Safe Storage, including any Incompatibilities: Store in original tightly closed container. Store away from incompatible materials (see sec. 10). Protect from atmospheric moisture.

Section 8. Exposure Controls/Personal Protection

Occupational Exposure Guidelines: No exposure limits noted for ingredients. Particles Not Otherwise Regulated (PNOR) 00-00-001, OSHA Final PEL TWA 15mg/m3 (total), 5mg/m3 (respirable).

Appropriate Engineering Controls: Good general ventilation (generally 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product. It is recommended that users of this product perform a risk assessment to determine the appropriate PPE.

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<u>Individual Protection Measures, Personal Protective Equipment:</u>

Eye/Face: Wear eye protection with side shields and face protection.

Skin/Body: Wear chemical resistant gloves. Wear clean, body covering clothing. Wear appropriate clothing

to avoid skin contact.

Respiratory: No special protective equipment is needed under normal use conditions.

General Hygiene Considerations: Always observe good personal hygiene measures, such as washing after

handling the material and before eating, drinking, and/or smoking. Routinely ash work clothes and

protective equipment to remove contaminants.

Section 9. Physical & Chemical Properties

Appearance: Clear

Physical State: Liquid Color: Clear

pH: 8-9 Odor: Odorless

Boiling Point: 230-252 F Odor Threshold: Not available

Vapor Pressure: 9-15 mm Hg @ 25 C Specific Gravity: 1.275-1.439

Freeze Point: -46 F Flash Point: >200 F.

Evaporation Rate: Not available Flammability (solid, gas): Non-flammable

Upper Flammability Limit: Not available Lower Flammability Limit: Not available

Explosive Properties: Not available Vapor Density: Not available

Water Solubility: Soluble Auto-Ignition Temperature: Not available

Decomposition Temperature: Not available Viscosity: Water-like

Oxidizing Properties: Not available

Other Solubilities: Not available

Section 10. Stability & Reactivity

Reactivity: Hygroscopic

Chemical Stability: Stable under normal conditions.

Possibility of Hazardous Reactions: Hazardous polymerization does not occur.

Conditions to Avoid: Do not mix with other chemicals. Avoid contact with incompatible materials.

Incompatibility: Bromide trifluoride, 2-furan percarboxylic acid, zinc, methyl vinyl ether,

Hazardous Polymerization: Will not occur.

Hazardous Decomposition Products: Hydrogen chloride gas, calcium oxide.

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Section 11. Toxicological Information

INFORMATION ON LIKELY ROUTES OF EXPOSURE:

Inhalation: Inhalation of mist may cause irritation of the respiratory system. Prolonged inhalation may be harmful.

Ingestion: Causes gastrointestinal tract irritation. Low toxicity if swallowed.

Skin Contact: May cause skin irritation. Brief contact is essentially non-irritating. Prolonged contact may cause irritation or even a burn.

Eye Contact: May cause serious eye irritation. May cause slight corneal injury. Effects may be slow to heal.

COMPONENT INFORMATION:

<u>Chemical Name</u> <u>Oral LD50</u> <u>Dermal LD50</u> <u>Inhalation LC50</u>

Calcium chloride 1000mg/kg (rat) 2630mg/kg (rat) N/A

INFORMATION ON PHYSICAL, CHEMICAL, TOXICOLOGICAL EFFECTS:

Symptoms: May cause skin irritation. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory tract irritation if swallowed.

DELAYED & IMMEDIATE EFFECTS AS WELL AS CHRONIC EFFECTS FROM SHORT TERM EXPOSURE & LONG TERM EXPOSURE:

Carcinogenicity: Not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA

Respiratory Sensitization: Not available.

Skin Sensitization: Not expected to cause skin sensitization.

Germ Cell Mutagenicity: No data available to indicate product is mutagenic or genotoxic.

Reproductive Toxicity: Not expected to cause reproductive toxicity.

Specific Target Organ Toxicity, Single exposure: Not classified Specific Target Organ Toxicity, repeated exposure: Not classified.

Aspiration Hazard: Not available. Chronic Effects: None noted.

Section 12. Ecological Information

Ecotoxicity: Practically non-toxic to aquatic life on an acute basis. LC50/EC50/EL50/LL50 >100mg/L in most sensitive species.

Chemical

Calcium Chloride LC50 8350-10650mg/L (bluegill)

LC50 759-3005mg/L (water flea)

Persistance & Degradability: Not believed to persist in the environment.

Bioaccumulation: Does not bioaccumulate.

Mobility in Soil: Not absorbed in soil due to dissociation properties.

Other adverse Effects: No other adverse effects expected.

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Section 13. Disposal Considerations

Disposal Instructions: Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of in accordance with local/regional/national/international regulations. Hazardous Waste Code: N/A

Waste from Residues/Unused Products: Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see Disposal Instructions).

Contaminated Packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal. Since empty containers may contain product residue, follow all label warnings even after container is emptied.

Section 14. Transport Information

Proper Shipping	Classes	PG*	Label
Name			
<u>r</u>	r Name	r Name	r Name

NOTE: DOT Classification applies to most package sizes. For specific container size classifications or for size exceptions, refer to the Bill Of Lading with your shipment.

PG*: Packing Group

Section 15. Regulatory Information

U.S. Federal Regulations:

SARA 313 toxic chemical notification and release reporting:

Not regulated.

CERCLA

Clean Water Act (CWA) 307: No. Clean Water Act (CWA) 311: No

Clean Air Act (CAA) 112 Regulated Toxic Substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

TCCA (/a) IIID. Not regulated

TSCA 8(a) IUR: Not regulated.

United States Inventory (TSCA 8b): Not regulated.

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US State Right to Know Regulations: No

State Regulations

California Prop 65: No products were found in sufficient amounts to require reporting.

Section 16. Other Information

NFPA: 2,0,0 HMIS: 2,0,0

Issue Date: 10/14/15 Revision Date: N/A Revision Note: N/A

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

*Note: Hazard Determination System (HDS) ratings are on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although these ratings are not required on SDS's under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings are to be used with a fully implemented program to relay the meanings of this scale.