SAFETY DATA SHEET

1. Identification

Product identifier	T-San	
Other means of identification		
Product Number	2001002	
Recommended use	Not available.	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/	Distributor information	
Manufacturer		
Company name	Thatcher Company, Inc.	
Address	1905 Fortune Road	
	Salt Lake City, UT 84104	
	United States	
Telephone	General Assistance 8-5	(801) 972-4587
E-mail	Not available.	
Emergency phone number	Chemtrec (CCN 22106)	(800) 424-9300

2. Hazard(s) identification

Physical hazards	Not classified.	
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 4
	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements



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Signal word	Danger
Hazard statement	Toxic if swallowed. Harmful in contact with skin. Causes severe skin burns and eye damage. Causes serious eye damage. Toxic to aquatic life.
Precautionary statement	
Prevention	Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.
Response	If swallowed: Immediately call a poison center/doctor. If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. 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/doctor. Take off contaminated clothing and wash before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	95% of the mixture consists of component(s) of unknown acute oral toxicity. 95% of the mixture consists of component(s) of unknown acute dermal toxicity. 95% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Alkyl(c=12-18) Benzyldimethylammonium Chloride		68391-01-5	5
N-alkyl(c12-c18)dimethyl Ethylbenzyl Ammonium Chloride		68956-79-6	5
Ethanol		64-17-5	1.25
Other components below reportable lev	vels		88.75

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures	
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Not applicable.
Special protective equipment and precautions for firefighters	Wear suitable protective equipment.
Fire fighting equipment/instructions	Move containers from fire 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.
6. Accidental release meas	sures
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. 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. For personal protection, see section 8 of the SDS.

Methods and materials for Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth containment and cleaning up and place into containers. Prevent product from entering drains. 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 spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

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

7. Handling and storage

Precautions for safe handling	Provide adequate ventilation. Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Wash contaminated clothing before reuse. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) Components Value Type Ethanol (CAS 64-17-5) PEL 1900 mg/m3 1000 ppm **US. ACGIH Threshold Limit Values** Components Туре Value STEL Ethanol (CAS 64-17-5) 1000 ppm **US. NIOSH: Pocket Guide to Chemical Hazards** Components Value Type TWA 1900 mg/m3 Ethanol (CAS 64-17-5) 1000 ppm No biological exposure limits noted for the ingredient(s). **Biological limit values** Appropriate engineering Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, controls 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. Individual protection measures, such as personal protective equipment Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield. Skin protection Hand protection Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier. Wear appropriate chemical resistant clothing. Other In case of insufficient ventilation, wear suitable respiratory equipment. **Respiratory protection Thermal hazards** Wear appropriate thermal protective clothing, when necessary. Keep away from food and drink. Always observe good personal hygiene measures, such as **General hygiene** considerations washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

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Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Not available.
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	> 194.0 °F (> 90.0 °C)
Material name: T-San	

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Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	8.25 lb/gal estimated
Explosive properties	Not explosive.
Flammability class	Combustible IIIA estimated
Oxidizing properties	Not oxidizing.
VOC (Weight %)	1.25 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	None known.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	May cause irritation to the respiratory system. Prolonged inhalation may be harmful.
Skin contact	Causes severe skin burns. Harmful in contact with skin.
Eye contact	Causes serious eye damage.
Ingestion	Toxic if swallowed. Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Information on toxicological eff	fects

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Acute toxicity	Toxic if swallowed. Harmful in contact with skin.		
Components	Species	Test Results	
Alkyl(c=12-18) Benzyldim	ethylammonium Chloride (CAS 68391-01-5	5)	
<u>Acute</u>			
Dermal			
LD50	Rat	1420 mg/kg	

Components	Species		Test Results	
Oral				
LD50	Mouse		150 mg/kg	
	Rat		240 mg/kg	
Ethanol (CAS 64-17-5)				
<u>Acute</u>				
Inhalation				
LC50	Mouse		39 mg/l, 4 Hours	
	Rat	:	20000 ppm, 10 Hours	
Oral				
LD50	Dog		5.5 g/kg	
	Guinea pig 5.		5.6 g/kg	
	Mouse		3450 mg/kg	
	Rat		7060 mg/kg	
			6.2 g/kg	
			0.0	
• •		tional component data not shown.		
Skin corrosion/irritation	Causes sever	e skin burns and eye damage.		
Serious eye damage/eye rritation	Causes seriou	is eye damage.		
Respiratory or skin sensitization	า			
Respiratory sensitization	Not a respirate	ory sensitizer.		
Skin sensitization	-	s not expected to cause skin sensitization		
Germ cell mutagenicity		No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.		
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.			
US. OSHA Specifically Regunation Not listed.	ulated Substand	ces (29 CFR 1910.1001-1050)		
Reproductive toxicity	This product is	s not expected to cause reproductive or d	levelopmental effects.	
Specific target organ toxicity - single exposure	Not classified.			
Specific target organ toxicity -	Not classified.			
Aspiration hazard	Not an aspirat	ion hazard.		
Chronic effects	-	Not an aspiration hazard. Prolonged inhalation may be harmful.		
	i tolonged init	alation may be harmal.		
12. Ecological information	ı			
Ecotoxicity	Toxic to aquat	tic life.		
Components		Species	Test Results	
Ethanol (CAS 64-17-5)				
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	7.7 - 11.2 mg/l, 48 hours	
Fish	LC50	Fathead minnow (Pimephales promelas	s) > 100 mg/l, 96 hours	
* Estimates for product may b	e based on addi	tional component data not shown.		
Persistence and degradability	No data is ava	ailable on the degradability of this produc	t.	
Bioaccumulative potential				
Partition coefficient n-octar	ol / water (log l	Kow) -0.31		
Ethanol				
Ethanol Mobility in soil	No data availa			

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT	
UN number	UN1903
UN proper shipping name	Disinfectants, liquid, corrosive n.o.s.
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	II
	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B2, IB2, T7, TP2
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242
DOT BULK	
BULK	
UN number	UN1903
UN proper shipping name	Disinfectants, liquid, corrosive n.o.s.
Transport hazard class(es)	
Class	8
Label(s)	8
Packing group	II
	Read safety instructions, SDS and emergency procedures before handling.
Special provisions	B2, IB2, T7, TP2
Packaging exceptions	154
Packaging non bulk	202
Packaging bulk	242
ΙΑΤΑ	
UN number	UN1760
UN proper shipping name	Corrosive liquid, n.o.s (Alkyldimethylbenzylammonium chloride, Ethanol solution)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	 No
Environmental hazards	No.
Other information	Read safety instructions, SDS and emergency procedures before handling.
	Fashiddan
Passenger and cargo	Forbidden.
aircraft Cargo aircraft only	Forbidden.
IMDG	
-	UN1760
UN number	Corrosive liquid, n.o.s (Alkyldimethylbenzylammonium chloride, ethanol solution)
UN proper shipping name	

Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	1
Environmental hazards	
Marine pollutant	No.
EmS	Not available.
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Transport in bulk according to	Not established.
Annex II of MARPOL 73/78 and the IBC Code	
DOT; DOT Bulk packaging type	





CORROSIVE

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15. Regulatory information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
TSCA Section 12(b) Export	Notification (40 CFR 707, Subpt. D)
Not regulated. CERCLA Hazardous Substa	nce List (40 CFR 302.4)
Ethanol (CAS 64-17-5) SARA 304 Emergency relea	Listed. se notification
Not regulated. US. OSHA Specifically Regu Not listed.	ulated Substances (29 CFR 1910.1001-1050)
Superfund Amendments and Re	eauthorization Act of 1986 (SARA)
Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No
SARA 302 Extremely hazard	dous substance
Not listed.	
SARA 311/312 Hazardous chemical	No
SARA 313 (TRI reporting) Not regulated.	

Other federal regulations			
Clean Air Act (CAA) Section	112 Hazardous Air Pollut	tants (HAPs) List	
Not regulated.			
Clean Air Act (CAA) Section	112(r) Accidental Release	e Prevention (40 CFR 68.130)	
Not regulated.			
Safe Drinking Water Act (SDWA)	Not regulated.		
US state regulations			
US - New Jersey RTK - Subs	stances: Listed substance		
Ethanol (CAS 64-17-5)			
US. California Controlled Su	ubstances. CA Departmen	t of Justice (California Health and Safet	y Code Section 11100)
Not listed.			
US. Massachusetts RTK - S	ubstance List		
Ethanol (CAS 64-17-5)			
US. New Jersey Worker and	Community Right-to-Kno	ow Act	
Not regulated.			
US. Pennsylvania RTK - Haz	ardous Substances		
Ethanol (CAS 64-17-5) US. Pennsylvania Worker ar	nd Community Pight to K	now Low	
Ethanol (CAS 64-17-5)	ia community Right-to-Ri		
US. Rhode Island RTK			
Not regulated.			
US. California Proposition 6	5		
		to the State of California to cause cancer a	and birth defects or other
US - California Proposit	tion 65 - CRT: Listed date/	Carcinogenic substance	
Ethanol (CAS 64-17-	·5)	Listed: April 29, 2011	
		Listed: July 1, 1988	
•	tion 65 - CRT: Listed date/	•	
Ethanol (CAS 64-17-	·5)	Listed: October 1, 1987	
International Inventories			
Country(s) or region	Inventory name		On inventory (yes/no)*
Australia	Australian Inventory of Ch	nemical Substances (AICS)	Yes
Canada	Domestic Substances Lis	t (DSL)	Yes
Canada	Non-Domestic Substance	es List (NDSL)	No
China	Inventory of Existing Che	mical Substances in China (IECSC)	Yes
Europe	European Inventory of Ex Substances (EINECS)	isting Commercial Chemical	Yes
Europe	European List of Notified	Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and	New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (E	ECL)	Yes
New Zealand	New Zealand Inventory	,	Yes
Philippines		nemicals and Chemical Substances	Yes
United States & Puerto Rico	Toxic Substances Contro	I Act (TSCA) Inventory	Yes
*A "Yes" indicates that all compor	nents of this product comply wi	th the inventory requirements administered by the not listed or exempt from listing on the inventor	he governing country(s)

16. Other information, including date of preparation or last revision

Issue date	05-11-2015
Revision date	10-07-2016
Version #	07
NFPA ratings	Health: 3 Flammability: 0 Instability: 0



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.
Revision Information	Product and Company Identification: Alternate Trade Names Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties Ecological information: Bioaccumulative potential Disposal considerations: Waste from residues / unused products Transport Information: Proper Shipping Name/Packing Group Regulatory information: California Prop 65 Other information, including date of preparation or last revision: Disclaimer