



AMERICAN CRYSTAL SUGAR COMPANY

GHS SAFETY DATA SHEET

Prepared to U.S. OSHA Standards in compliance with the GHS system (29 CFR 1910.1200(g), rev. 2012)

<p>Section 1</p>	<p>Identification</p>	<p style="text-align: center;"><u>LIQUID SUCROSE</u></p> <p>Manufacturer's Name American Crystal Sugar Co. 101 North 3rd Street Moorhead, MN 56560</p> <p>Emergency Telephone Number: (218) 236-4400</p> <p>Telephone Number for Information (218) 236-4324</p>	<p>food additive for canned bottled and dairy products, flavor enhancer, baking ingredient, intended for human consumption</p> <p>No restrictions on use</p> <p>Preparation Date: 14 Aug 2014</p> <p>Revised: 08 July 2015</p>
<p>Section 2</p>	<p>Hazard(s) Identification</p>	<p>No Hazardous Components</p> <p>Sugar itself supports combustion only poorly and is not by itself a hazard unless it is involved as a secondary fuel in an existing fire.</p>	<p>No known hazards</p>
<p>Section 3</p>	<p>Composition / Information on Ingredients</p>	<p>>99.85% Sucrose, sugar, D(+)Saccharose; C₁₂ H₂₂ O₁₁</p> <p>IUPAC: (2<i>R</i>,3<i>R</i>,4<i>S</i>,5<i>S</i>,6<i>R</i>)-2-[(2<i>S</i>,3<i>S</i>,4<i>S</i>,5<i>R</i>)-3,4-dihydroxy-2,5-bis(hydroxymethyl)oxolan-2-yl]oxy-6-(hydroxymethyl)oxane-3,4,5-triol]</p> <p>beta-D-Fructofuranosyl-alpha D glucopyranoside</p> <p>alpha-D-Gluco pyranosyl beta-D-fructofuranoside</p> <p>Water; H₂O</p>	<p>67.5% +/- 0.2% Brix 66.5% +/- 0.2% Brix- West</p> <p>CAS 57-50-1 UNII C151H8M554 EINECS 200-334-9 RTECS WN6500000 CHEMBL 253582</p> <p>Pure product (organic compound)</p> <p>CAS 7732-18-5</p>

Section 4	First Aid Measures	<p>INHALED: not expected to require first aid. Remove to fresh air; get medical attention for any breathing difficulty.</p> <p>INGESTED: seek medical attention if symptoms develop</p> <p>SKIN: flush area with water</p>	<p>EYES: Mechanical irritant (red, watery, sore eyes). Remove contact lenses if necessary. Flush granular material with running water, holding eyelids open. Get medical help if symptoms persist.</p>
Section 5	Fire-Fighting Measures	Normal fire department SOP for precautions and PPE.	<p>Though sugar itself supports combustion poorly, as with any finely divided organic (carbon-based) solid, however mixed with water chances are extremely low.</p>
Section 6	Accidental Release Measures	Minimize spills to avoid possible slip hazards.	<p>Clean-up personnel should wear proper protective equipment. Sweep or scoop up spill for recovery or disposal and place into a closed container. Non-toxic and biodegradable. Whatever cannot be saved for recovery may be discarded as permitted by applicable regulations.</p>
Section 7	Handling and Storage	<p>Avoid handling techniques which are capable of dispersing or spilling material.</p> <p>Remove ignition sources.</p> <p>Unloading conditions must be clean and sanitary.</p>	<p>In case of crystal formation in large capacity storage vessels, personnel working inside the vessel should not stand under large formations which could break loose and fall on those personnel.</p> <p>Keep product from getting diluted, possible fermentation can occur resulting in traces of ethanol and/or VFAs.</p> <p>Keep product well vented, and if possible not in confined spaces.</p>

Section 8	Exposure Controls / Personal Protection	None normally required.		If spilled material is being flushed, floors and steps may become sticky. Use proper footwear when negotiating floors and steps. Wearing of contact lenses when handling product should be avoided. Wear protective goggles.	
Section 9	Physical and Chemical Properties	Melting Point	N/A	Flash Point	N/A
		Boiling Point	N/A	Flammable Limits	N/A
		Specific Gravity (H₂O = 1)	1.33	LEL	N/A
		Vapor Pressure (mm Hg.)	5.15E-17	UEL	N/A
		Vapor Density (AIR = 1)	N/A	Appearance and Odor: clear, liquid; odorless to a characteristic caramel odor.	
		Evaporation Rate Butyl Acetate = 1)	N/A		
		Ash by Conductivity: • NMT 0.02%			
Section 10	Stability and Reactivity	<p>Stable under ordinary conditions of use and storage. Hazardous polymerization will NOT occur.</p> <p>Avoid temperatures above 160F; heat, flames, ignition sources, and incompatibles.</p>		<p>Avoid strong oxidizers (e.g. nitric acid or sulfuric acid).</p> <p>Thermal decomposition or burning will produce carbon dioxide, carbon monoxide.</p>	
Section 11	Toxicological Information	<p>Non-toxic</p> <p>LD50 29,700 mg/kg (oral, rat): Respiratory cyanosis</p>		Product contains no ingredients currently classified as carcinogenic by NTP, IARC, or OSHA.	
Section 12	Ecological Information (non-mandatory)	Non-toxic and biodegradable.		N/A	
Section 13	Disposal Considerations (non-mandatory)	Whatever cannot be saved for recovery may be discarded as permitted by applicable regulations.		N/A	

Section 14	Transport Information (non-mandatory)	Not applicable	N/A
Section 15	Regulatory Information (non-mandatory)	Not ordinarily regulated. (Note some countries do have import quotas which restrict total amount of sugar entering their borders.)	N/A
Section 16	Other Information	Reference: United Sugars Corp. Product Use and Information for Liquid Sucrose	N/A