

SAFETY DATA SHEET – GRANULATED

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

Section 1	Identification	Granulated Sugar Manufacturer's Name: United Sugar Producers and Refiners 8000 West 78th St., Suite 300 Edina, MN 55439 Shipper's Name: Cooper Natural Resources Inc. 7755 Bellaire Drive South Ft Worth, Texas 76132 (817) 244-9700 Emergency Telephone Number: CHEMTREC 800-424-9300	Food additive, beverage sweetener, flavor enhancer, baking ingredient, intended for human consumption No restrictions on use
Section 2	Hazard(s) Identification	No Hazardous Components 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.	The dust generated by the transportation and handling of sugar is an explosion hazard; measures must be taken to avoid the creation of fugitive dust and to abate any dust created.
Section 3	Composition/Information on Ingredients	Sucrose, sugar, D(+)-Saccharose; C₁₂H₂₂O₁₁ IUPAC: (2R,3R,4S,5S,6R)-2-[(2S,3S,4S,5R)-3,4-dihydroxy-2, 5-bis(hydroxymethyl) oxolan-2-yl] oxy-6-(hydroxymethyl) oxane-3,4,5-triol] beta-D-Fructofuranosyl-alpha D glucopyranoside alpha-D-Glucopyranosyl beta-D-fructofuranoside	Table sugar, white sugar, fine gran sugar, sugar, natural sweetener CAS 57-50-1 UNII C151H8M554 EINECS 200-334-9 RTECS WN6500000 CHEMBL 253582 Pure product (organic compound)
Section 4	First Aid Measures	INHALED: not expected to require first aid. Exposure to dust may cause coughing or aggravate pre-existing respiratory conditions (asthma). Remove to fresh air; get medical attention for any breathing difficulty	EYES: Mechanical irritant (red, watery, sore eyes). Flush granular material with running water, holding eyelids open. Get medical help if symptoms persist.

Section 5	Fire-fighting Measures	Use water or other approved media. Avoid creating airborne dust with high pressure water streams; the use of a fine spray to saturate the material is suitable for any firefighting. Thermal decomposition or burning will produce carbon dioxide, carbon monoxide. Normal fire dept SOP for precautions and PPE.	Sugar dust is explosive, similar to flour and grain products. Though sugar itself supports combustion poorly, the relative explosion hazard of the dust is severe. As with any finely divided organic (carbon-based) solid, dust may be explosive if mixed with air in critical proportions and in the presence of an ignition source possibly resulting in chain reaction-style, serial explosions.
Section 6	Accidental Release Measures	To mitigate possible dust hazard: • remove ignition sources • avoid dispersing dust into the air • ventilate area of spill • use non -sparking tools	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.
Section 7	Handling and Storage	Avoid handling techniques which are capable of producing and/or dispersing fugitive dust. Remove ignition sources.	Store in doors in areas of low humidity away from sources of moisture to avoid caking. In case of caking in large capacity storage vessels, personnel working inside the vessel should not stand under large cakes of sugar which could break loose and fall on those personnel.

Section 8	Exposure Controls/Personal Protection	None normally required. Inhalation of high concentrations of the dust may cause coughing and upper respiratory tract irritation. In dusty situation, a NIOSH-approved respirator for dust may be worn. Pre-existing respiratory conditions: use approved mask.		In cases of water being used to flush spilled material, 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	Decomposes >185° C	Flash Point	N/A
		Boiling Point	N/A	Flammable Limits	N/A
		Specific Gravity (H ₂ O = 1)	1.587	LEL	Dust 20 g/m ³
		Vapor Pressure (mm Hg.)	5.15E-17	UEL	Dust 15 kg/m ³
		Vapor Density (AIR = 1)	N/A	Appearance and Odor: White, crystalline solid (monoclinic sphenoidal); odorless to a characteristic caramel odor.	
		Evaporation Rate Butyl (Acetate = 1)	N/A		
		Solubility in Water: • 2.07 grams per gram water @ 25° C • 331 grams per 100 grams water @ 70° C			
Section 10	Stability and Reactivity	Stable under ordinary conditions of use and storage. Hazardous polymerization will NOT occur. Avoid temperatures above 160° F; heat, flames, ignition sources, and incompatibles		Avoid strong oxidizers (e.g. nitric acid or sulfuric acid). Thermal decomposition or burning will produce carbon dioxide, carbon monoxide	

Section 11	Toxicological Information	Non-toxic LD50 29,700 mg/kg (oral, rat): Respiratory cyanosis	Product contains no ingredients currently classified as carcinogenic by NTP, IARC, or OSHA.
Section 12	Ecological Information (non-mandatory)	Non-toxic and biodegradable	
Section 13	Disposal Considerations (non-mandatory)	Whatever cannot be saved for recovery may be discarded as permitted by applicable regulations.	
Section 14	Transport Information (non-mandatory)	Not applicable	
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.)	
Section 16	Other Information	Note: sugar dust is explosive, similar to flour and grain products.	
		Ignition temperature of dust cloud	350° C
		Minimum igniting energy	< 10mJ
		Minimum explosion concentration	0.035 oz/cu ft
		Maximum explosion pressure	9 bar
		Maximum rate of pressure rise	5,000 psi/sec
		Minimum exposable concentration in air	0.045 g/L
			Preparation Date: 10/10/2023 Revised: New

Granulated Sugar

Page 4 of 4

20231001_USPR_SDS_GRANULATED