SAFETY DATA SHEET

1. Identification

Product identifier	**Granulated Sugar**
Other means of identification	
SDS number	**1**
Product code	ISC-D001
Synonyms	Granulated Sugar. Sucrose. Sugar. Cane Sugar. A Coarse. Fine Sanding. Baker's Special. Fruit Granulated. Medium Granulated. Extra Fine Granulated.
Recommended use	Industrial ingredient. Retail baking.
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/Distributor information	
Manufacturer/Supplier Address	Imperial-Savannah, LP 201 Oxnard Drive Port Wentworth, GA 31407 United States
Telephone number	912-721-3446
Emergency telephone number	Within the United States, Canada, Puerto Rico, and the U.S. Virgin islands call ChemTel: 1-800-255-3924. For international access call: +1-813-248-0585.

2. Hazard(s) identification

Physical hazards	Not classified
Health hazards	Not classified
OSHA defined hazards	Combustible dust
Label elements	
Hazard symbol	None
Signal word	Warning
Hazard statement	May form combustible dust concentrations in air.
Precautionary statement	
Prevention	Observe good industrial hygiene practices.
Response	Remove and wash contaminated clothing before re-use. In case of fire, use appropriate media to extinguish.
Storage	Store away from incompatible materials.
Disposal	Dispose of waste and residues in accordance with local requirements.
Hazard(s) not otherwise classified (HNOC)	None known
Supplemental information	Not applicable

3. Composition/information on ingredients

Substances

Chemical name	Common name and synonymns	CAS number	%
Sucrose	Granulated Sugar, Sucros, Sugar, Cane Sugar, A Coarse, Fine Sanding, Baker's Special, Fruit Granulated, Medium Granulated, Extra Fine Granulated	57-50-1	100

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in

percent by volume.

4. First aid measures

Inhalation	If dust from the material is inhaled, remove the affected person immediately to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops and persists.
Eye contact	Do not rub eyes. Rinse with water. Get medical attention if irritation develops and persists.
Ingestion	Large quantities: rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Direct contact with eyes may cause temporary irritation.
Indication of immediate medical attention and special treatment needed	Treat symptomatically
General information	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media	Water spray. Water fog. Dry chemical powder. Foam. 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	During fire, gases hazardous to health may be formed. When heated to decomposition, the product emits acrid smoke and irritating fumes.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Use water spray to cool unopened containers.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	May form combustible dust concentrations in air. Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Avoid dust formation. Provide adequate ventilation. Avoid breathing dust. Avoid contact with skin and eyes. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Minimize dust generation and accumulation. Use explosion-proof electrical equipment if airborne dust levels are high. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Non-sparking tools should be used. Sweep up or vacuum up spillage and collect in suitable container for disposal. Do not vacuum clean unless vacuum cleaners are equipped with HEPA filter. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drain, watercourses or onto the ground.

7. Handling and storage

Precautions for safe handling	Minimize dust generation and accumulation. Provide appropriate exhaust ventilation at places where dust is formed. Avoid breathing dust. Avoid contact with skin and eyes. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Keep away from heat and sources of ignition. Avoid dust formation. Store in original, tightly closed container. Store in a well-ventilated place. Store in a dry place. Store away from incompatible materials (see section 10 of the SDS). Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Refer to NFPA 654, standard for the Prevention of Fire and Dust Explosions from the manufacturing, Processing, and Handling of

Combustible Particulate Solids, for safety handling.

8. Exposure controls/personal protection

Occupational exposure limits

U.S. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Material	Type	Value	Form
Sucrose (CAS 57-50-1)	PEL	5 mg/m3 15 mg/m3	Respirable fraction Total dust

U.S. ACGIH Threshold Limit Values

Material	Type	Value
Sucrose (CAS 57-50-1)	TWA	10 mg/m3

U.S. NIOSH: Pocket Guide to Chemical Hazards

Material	Type	Value	Form
Sucrose (CAS 57-50-1)	TWA	5 mg/m3 10 mg/m3	Respirable Total dust

Biological limit values No biological exposure limits noted for the ingredient(s)

Appropriate engineering controls 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, 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. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. If engineering measures are not sufficient to maintain concentrations of dust particles below the occupational exposure limit (OEL), suitable respiratory protection must be worn. It is recommended that all dust control equipment, such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents, an explosion suppression system, or an oxygen deficient environment.

Individual protection measures, such as personal protective equipment

Eye/face protection Use tight fitting goggles if dust is generated

Skin protection

Hand protection For prolonged or repeated skin contact, use suitable protective gloves

Other Wear appropriate chemical resistant clothing

Respiratory protection Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal hazards Wear appropriate thermal protective clothing, when necessary

General hygiene considerations Always observe good personal hygiene measures, such as 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

Physical state Solid

Form Crystals. Extra Fine Granulated (EFG) Sugar.

Color White

Odor Odorless

Odor threshold Not applicable

pH Not available

Melting point/freezing point 185°C (365°F)

Initial boiling point and boiling Range Not applicable

Flash point Not applicable

Evaporation rate Not applicable

Flammability (solid, gas)	Combustible dust. Fine particles may form explosive mixtures with air.
Upper/lower flammability or explosive limits	
Flammability limit – lower %	Not applicable
Flammability limit – upper %	Not applicable
Vapor pressure	Not available
Vapor density	Not available
Relative density	1.59
Solubility(ies)	
Solubility (water)	200 g/ml (20°C)
Partition coefficient (n-octanol/water)	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	Not applicable
Viscosity	Not applicable
Other information	FINE FRACTION [8% <75 µ] Minimum ignition energy: 4 mJ Minimum ignition temperature: 350° C. Minimum explosion concentration: 55 g/m^3 Maximum explosion pressure: 9 barg; 130 psig Deflagration index: 140 bar-m/sec Resistivity: 10E+12 Ohm*m COARSE FRACTION [50% > 450 µ] Minimum ignition energy: 10 mJ Minimum ignition temperature: 370° C Minimum explosion concentration: 65 g/m^3 Maximum explosion pressure: 5.9 barg; 85 psig Deflagration index: 35 bar-m/sec Resistivity: 10E+12 Ohm*m Notes: The fine-fraction data would be applicable within dry dust collectors; for accumulations on elevated surfaces; in exhaust-ventilation ducts; in downlegs of bucket elevators; in dilute-phase pneumatic conveyors; in head spaces in blenders and mixers; in trucks and railcars during loading; in bags, drums, FIBCs, bins, and silos during filling. Locations where the coarse-fraction data may be applicable include during bottom unloading from trucks and railcars; during dumping from hoppers, bins, bags, and FIBCs; on belt conveyors; in screw conveyors; in dense-phase pneumatic conveyors; and in elevator buckets. Locations where intermediate values of the data could be applicable, depending on the dispersability or stickiness of the materials and the extent of segregation of the fine and coarse fractions include rotary driers and coolers; in mixers, blenders, and tumblers; and at transitions between conveying systems, such as belt conveyors, bucket elevators, screw conveyors, and chutes. Caution: Dust explosion properties are very dependent on particle properties such as average particle size, particle-size distribution, particle shape, and moisture content. If the as-received physical or chemical properties are modified by the user during handling or processing and if such dusts are accumulated in cyclones or dust collectors, it is important that explosibility data be obtained from tests on representative samples of the modified material.
Bulk density	49-56 lb/ft^3
Molecular formula	C12-H22-O11
Molecular weight	342.3 g/mol

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	No dangerous reaction know under conditions of normal use
Conditions to avoid	Heat, flames and sparks. The substance is hygroscopic and will absorb water by contact with the moisture in the air.
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Carbon oxides. When heated to decomposition, the product emits acrid smoke and irritating fumes.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful. Inhalation of dusts may cause respiratory irritation.
Skin contact	May cause irritation through mechanical abrasion
Eye contact	Dust may irritate the eyes
Ingestion	Expected to be a low ingestion hazard
Symptoms related to the physical, chemical and toxicological characteristics	Direct contact with eyes may cause temporary irritation

Information on toxicological effects

Acute toxicity	Not available
Skin corrosion/irritation	May cause irritation through mechanical abrasion
Serious eye damage/ eye irritation	Dust may irritate the eyes

Respiratory or skin sensitization

Respiratory sensitization	No data available
Skin sensitization	No data available
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
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	Not listed
Reproductive toxicity	This product is not expected to cause reproductive or development effects.
Specific target organ toxicity-single exposure	No data available
Specific target organ toxicity-repeated exposure	No data available
Aspiration hazard	Not classified
Further information	None known

12. Ecological information

Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.
Persistence and degradability	No data available
Bioaccumulative potential	The product is not expected to bioaccumulate
Mobility in soil	This product is water-soluble and may disperse in soil
Mobility in general	The product is water soluble and may spread in water systems
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site
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	Empty containers should be taken to an approved waste-handling site for recycling or disposal. Since emptied containers may retain residue, follow label warnings even after container is emptied.

14. Transport information

DOT	Not regulated as dangerous goods
IATA	Not regulated as dangerous goods
IMDG	Not regulated as dangerous goods
Transport in bulk according to Annex II of MARPOL 73/78 and The IBC Code	Not applicable

15. Regulatory information

U.S. federal regulations

This material is listed on the US TSCA 8(b) Inventory and the intended use is as an edible food product. This material, when used in the R&D, Food, Drug or Cosmetic applications, is a TSCA exempt material.

This product is a “hazardous chemical” as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate hazard – No Delayed hazard – No Fire hazard – Yes Pressure hazard – No Reactivity hazard – No
SARA 302 Extremely Hazardous Substance	Not listed
SARA 311/312 Hazardous	Yes
SARA 313 (TRI reporting)	Not regulated

Other federal regulations

Food and Drug Administration (FDA)	Listed as a total food additive, a direct food additive and a GRAS food additive
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated
Safe Drinking Water Act (SDWA)	Not regulated

US state regulations

U.S. Massachusetts RTK – Substance List

Sucrose (CAS 57-50-1)

U.S. Pennsylvania Worker and Community right-to-Know Law

Sucrose (CAS 57-50-1)

International Inventories

Country(ies) or region	Inventory name	On inventory (yes/no)*

Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A “Yes” indicates this product complies with the inventory requirements administered by the governing country(s).
A “No” indicates that one of more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date 03-June-2015

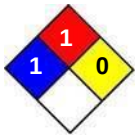
Revision date 28-April-2020

Version # 02

HMIS®

Health: 1
Flammability: 1
Physical hazard: 0

NFPA ratings



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