

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: Sucralose, Crystalline Powder

SYNONYMS: Sucralose; 4,1',6'-trichloro-*galacto*-sucrose

CAS NUMBER: 56038-13-2

FORMULA: C₁₂H₁₉Cl₃O₈

RTECS NUMBER: LW5440140

SECTION 1 - CHEMICAL IDENTIFICATION

COMPANY: DULCETTE TECHNOLOGIES LLC

707 Broadhollow Rd
Farmingdale NY 11735-3903
631-752-8700

CHEMICAL NAME: 1,6-DICHLORO-1,6-DIDEOXY-β-D-FRUCTOFURANOSYL-4,CHLORO-4-DEOXY-α-D-GALACTOPYRANOSIDE

CHEMICAL FAMILY: Chlorinated Carbohydrate (non nutritive sweetener)

SECTION 2 – HAZARDOUS CHEMICAL COMPONENTS

No components are listed as hazardous materials and/or are present in quantities as defined in OSHA 29CFR 1910.1200

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Potential Health Effects: No adverse effects expected.

Primary Route(s) of Entry: Inhalation/Ingestion.

Eyes: No adverse effects expected.

Skin: Sustained exposure in a dusty manufacturing environment may result in irritation in the creases of the skin, particularly at the fingers and hands.

Ingestion: Material is an intensely sweet, non toxic crystalline powder. No adverse effects expected.

Inhalation: Exposure to high airborne concentration may cause mild respiratory irritation.

SECTION 4 – FIRST AID MEASURES

No treatment necessary under ordinary circumstances. Use good personal hygiene - wash thoroughly with soap and water after handling.

If any redness or irritation develops, contact a physician.

Eyes No special treatment under normal circumstances – flush with water

Skin No special treatment under normal circumstances – flush with water

Ingestion No special treatment under normal circumstances – drink copious amounts of water or milk

Inhalation No special treatment under normal circumstances – move to fresh air

Note to Physician

Sucralose is safe for human consumption based on extensive toxicological studies. Material is an intensely sweet, crystalline powder. Exposure to high airborne concentration may cause mild respiratory or eye irritation.

SECTION 5 - FIRE FIGHTING AND EXPLOSION DATA

Fire fighting Measures - Stable under normal conditions. Dust Hazard Classification (NFPA-68) is St-2, the formation of flammable/explosive air/dust mixtures is possible. Appropriate measures should be employed to minimize the potential for dust concentrations in the flammable range.

It is recommended that all dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions.

Flammable Properties: Stable under normal conditions. Sucralose, when heated at elevated temperatures, may break down with the release of carbon dioxide, carbon monoxide and minor amounts of hydrogen chloride. Heavy concentrations of sucralose dust may create conditions contributing to dust explosions.

Fire and Explosion Hazards: Minimum spark ignition energy: 0.40 Joules Minimum ignition temperature: 390°C (734 °F) Minimum explosion concentration for dust: 16.5 g/M³ (0.165 oz/Ft³) (similar to a dense fog).

Extinguishing Media: Use any media which is suitable for the surrounding fire: water, dry chemical, foam, CO₂, etc.

Fire fighting Instructions: Wear self-contained breathing apparatus and full protective gear – evacuate personnel to a safe area.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

No special clean-up procedure is necessary. Avoid creating conditions that will contribute to high concentrations of sucralose dust. Carefully dampen and sweep or vacuum up into appropriate sealed waste container for disposal.

SECTION 7 – HANDLING AND STORAGE

Handling Precautions: Avoid creating dusty conditions. While no special respiratory protection is required, a dust mask, gloves and other good industrial hygiene practices to minimize worker exposure will result in a more comfortable work environment.

Storage Precautions: Store tight covered container in a cool dry area preferably in Dulcette's supplied drum packaging.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls It is recommended that all dust control equipment and material transport systems involved are engineered to prevent conditions contributing to dust explosions.

Eye/Face Protection Eye protection consistent with good laboratory practices or good industrial hygiene practices for handling powders is highly recommended.

Skin Protection Use good industrial hygienic practices.

Respiratory & Other Protection While no special respiratory protection is required, a dust mask, gloves (rubber or plastic) and other good industrial hygiene practices to minimize worker exposure will usually result in a more comfortable work environment

Other/General Protection Wear a hair cap.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance White to off-white, fine powder

Odor Practically odorless

Odor Threshold N/A

Basic Physical Properties

Boiling Point: N/A
Melting Point: 130° C (266°F) with decomposition
Vapor Pressure: <1 mmHg
Solubility (H₂O): complete 30% w/v at 25°C (77°F)
pH: Neutral in aqueous solution.

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable under normal conditions (temperature, pressure and humidity. Sucralose, when heated at elevated temperatures, may break down with the release of carbon dioxide, carbon monoxide and minor amounts of hydrogen chloride.

Conditions to Avoid: Prolonged storage at elevated temperatures (>38°C, or >100°F) or high humidity.

Incompatible Materials: Powerful reducing or oxidizing agents, strong alkalies.

Hazardous Decomposition: Carbon dioxide, carbon monoxide and minor amounts of hydrogen chloride.

Polymerization: None known

Hazardous Polymerization: None reported

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute Studies: Material is a non-toxic food additive conforming to Food Chemical Codex and USP/NF. Oral rat LD₅₀ >10 g/kg; Oral mouse LD₅₀ >16 g/kg - no mortalities reported even at the highest tested doses.

SECTION 12 – ECOLOGICAL INFORMATION

Sucralose is biodegradable and poses no risk to the environment. Sucralose and its breakdown products are non-toxic to plant, aquatic and animal life, are not fat-soluble, and do not accumulate in plant or animal tissue.

SECTION 13 – DISPOSAL CONSIDERATIONS

No special disposal considerations.

Dispose in accordance with federal, state and local regulations.

SECTION 14 – TRANSPORTATION INFORMATION

Transport Information No special considerations or problems.

Proper Shipping Name & Information:

Hazard Class: Subsidiary Hazard Class: DOT Identification Number: DOT Shipping
Label: Non-hazardous Packaging Exemptions: Packaging Requirements: Freight
Classification: Standard

SECTION 15 – REGULATORY INFORMATION

US Federal Regulatory Information OSHA: No components are listed as hazardous materials
and/or are present in quantities as defined in OSHA
29CFR 1910.1200

**Not on the Health and Safety Reporting List or are under a chemical test rule. Not listed under
TSCA section 12b or have a SNUR**

SARA Nothing in this material has an RQ or TPQ, nothing is reportable under section 313.

Clean Air Act: Does not contain any hazardous air pollutants or Ozone depleters.

Clean Water Act: Nothing in this product is listed as hazardous or a pollutant under CWA.

SECTION 16 – OTHER INFORMATION & GENERAL DISCLAIMER

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