

Material Safety Data Sheet

Updated on July 24, 2015

1. Material Identification

Chemical Name: 1,6-dichloro-1,6-dideoxy-beta D-fructofuranosyl-4-chloro-4-deoxy-alpha-D-galactopyranoside

Molecular Formula: $C_{12}H_{19}O_8Cl_3$

Synonyms: 4,1',6'-trichlorogalactosucrose

Chemical Family: Chlorinated carbohydrates

Product Specification: Detailed specification for this food ingredient is available.

Company: Shandong Kanbo Biochemical Technology Co., Ltd

2. Compositional Details

CAS Number 56038-13-2

Component Sucralose

% Composition w/w 100%

3. Main Health Hazards

Potential Health Effects: No effects expected.

4. Emergency and First Aid Procedures on Exposure

Eyes: Flush eyes with plenty of water

Skin: Wash with plenty of water. No treatment necessary under normal circumstances. If redness or irritations develop, seek medical attention. Remove grossly contaminated clothing and wash before re-use.

Ingestion: No special treatment necessary. In extreme cases seek medical attention.

Inhalation: Remove to fresh air. In severe cases obtain medical attention.

4.1 Notes To Physicians

Materials is a non-toxic food ingredient in the form of an intensely sweet crystalline solid. Exposure to high airborne concentration may cause mild respiratory irritation.

5. Fire Fighting Measures

Flammability Class (Fire Train Method):

Not highly flammable

Fire Extinguishing Media: Use any media suitable for the surrounding fire.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and full protective gear.

6. Spillage and Disposal Procedures

Steps to be taken if material is released or spilled. No special clean-up is necessary. Avoid creating dusty conditions. Carefully sweep or vacuum up into waste container. Wash site of spillage thoroughly with water.

7. Special Requirements

Handling: Normal work/hygienic practices. Avoid creating dusty conditions.

Storage: It is recommended that sucralose powder is stored in manufacturer's supplied packaging at 21 °C or below and away from odoriferous materials. The store should be dry and the product kept in closed containers away from direct sunlight.

8. Special Protection Information

8.1: Exposure Limits No threshold limit value (TLV) assigned by American Conference of Governmental Industrial Hygienists (ACGIH).

8.2: Personal Protection:

General Protection: Use good industrial hygiene practices.

Eye Protection: Not required (but recommended). Safety goggles or face shield in emergency or non-routine situations.

Protective Clothing: Food manufacturing plant or laboratory clothing should normally be sufficient. Gloves may be used to avoid skin contact.

Respiratory Protection: Not required under normal circumstances. Dust mask or respirator for dusty conditions.

a) Plant and Engineering Factors

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

9. Physical Data

Appearance and Odour: White to off white, sweet crystalline solid, practically odourless.

Odour Threshold: Not applicable

Boiling Point: Not applicable

Freezing Point: Solid at room temperature

Specific Gravity: Not applicable

Vapour Pressure: Not applicable

Solubility in water: 25.7g/100g at 20°C

PH: 5-7(10% solution in water)

10. Fire and Explosion Hazard Data

10.1 Fire and Explosion Hazards:

Stable under normal conditions.

When burned, the combustion products were identified as carbon dioxide, hydrogen, hydrogen chloride, methane and organics as both low molecular and aromatic hydrocarbons.

Heavy concentrations of sucralose dust may result in the formation of explosive air /dust mixtures. Appropriate measures should be employed to minimize the potential for dust explosions. It is recommended that all dust control equipment and material transport systems are engineered to prevent conditions contributing to dust explosions.

10.2 Dust Hazard Classification

Maximal explosion pressure P: 6.7 barg

Dust Class: ST-2

Kst: 225 bar.m.sec-1

Minimum explosive Concentration for Dust (MEC): 115gm³

Minimum Ignition Energy (MIE): 200-300 mJ

Minimum Ignition Temperature (MIT): 390°C

11. Reactivity

Stability: Stable under normal conditions.

Incompatibility (Materials to Avoid): None known

Hazardous Decomposition Products: If subjected to elevated temperatures in storage or processing, sucralose in its pure Crystalline form will break down with the release of volatile organic compounds and Hydrogen chloride.

Hazardous Polymerization: Will not occur.

Conditions to Avoid: Excessively hot storage and processing conditions. Creating high concentrations of dust.

12. Toxicology Data

Oral rat LD₅₀> 10g/Kg; oral mouse LD₅₀> 16g/Kg. (No mortality at the highest tested doses). Material is a



non-toxic food Ingredient.

Eye Contact

No effects expected. High airborne concentration may cause mild irritation.

Skin Contact

No effects expected.

Ingestion

Material is a non-toxic food ingredient.

Inhalation

No effect expected. Material is an intensely sweet, crystalline solid. Exposure to high airborne concentration may cause mild respiratory irritation.

Medical Conditions Aggravated by Exposure: None known.

13. Disposal of Waste Material:

May be disposed of as land fill (subject to local regulations) or by incineration. Small quantities may be flushed down drains with excess water.

Disposal of Container

Wash out with water and dispose of as general household waste.

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