

MATERIAL SAFETY DATA SHEET (MSDS) – ISM-HSD-005**Section 1 Identification of the substances/preparation and company:**

Products: Brown Sugars

Synonyms: Beet sugar; Saccharose; Sucrose; Sugar; Table sugar

Uses: Food Ingredient

CAS#: 57-50-1

Supplier: British Sugar plc, Sugar Way, Peterborough, PE2 9AY

Telephone: 01733 563171

Section 2 Composition and information on Ingredients:

Formula: C₁₂H₂₂O₁₁

EINECS: 200-334-9

Hazard: N/A

Status:

Composition: 90-95% sucrose
5-10% cane molasses *
Moist brown crystals of varying size *
Water-soluble

Note: * For composition, please refer to relevant product specification

Section 3 Hazards identification:

Hazard Symbols: None listed

Risk Phrases: None listed

Fire and explosion data: Dry sucrose is combustible. Dust in air mixture can be explosive

Dust explosion classification: ST1

Ignition temperature of dust cloud: 320°C *

Ignition temperature of dust layer: 300°C *

Minimum spark energy for ignition of dust cloud: 5mJ *

Minimum explosion concentration: 150g/m³ *

Minimum explosion pressure: 9.5 bar

KST value: 135 bar ms⁻¹ *

**(based on worst-case scenario for this group of products)*

Section 4 First aid measures:

Eyes: Flood the eyes thoroughly with clean water

Skin: Rinse area with clean, soapy water. If irritation develops, seek medical assistance (potential for industrial dermatitis)

Inhalation: Remove patient to a dust-free atmosphere

Ingestion: N/A

Section 5 Fire fighting measures:

Extinguishing media: Water spray
General information: Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus to prevent contact with thermal decomposition of products.

In certain circumstances, this material has the capacity to form a dust explosion.

Section 6 Accidental release measures:

Remove all solids prior to washing down.
Avoid generating dust. Ventilation may be required.
Sugar solutions are classed as polluting liquids. Keep away from water courses and sewers. **(Has a high BOD/COD)**

Section 7 Handling and storage:

Handling: Avoid creation of dust when handling
LEV should be provided to minimise dust levels

Exposure to sources of ignition is not recommended

The design of new or modifications to existing sugar handling installations should conform to the guidance issued by the Health & Safety Executive. (Please refer to HSE Information Sheet Ref. NIS/21/02 Food sheet No 2). This also applies to any blowing systems on the customer's site.

Storage: Store away from direct sunlight and sources of ignition.
Do not store sugar products close to substances with strong smell, such as flavours, spices, perfumes and cleaning materials, as sugar readily absorbs odours.

Brown sugars tend to dry out in warm conditions. Consequently, the ideal storage environment should be cool and within the range 65-85% relative humidity. Products should not be subject to draughts.

Section 8 Exposure control/personal protection:

Occupational exposure limits (respiratory):

Long term (8hr TWA) = 10mg/m³
Short term (15min. ref.) = 20mg/m³

Personal protective equipment:

Eyes:	N/A
Skin:	Hand protection is advised
Ingestion:	N/A
Inhalation	R.P.E may be required

Section 9 Physical and chemical properties:

For full details of physical and chemical properties, please refer to the relevant product specification, in addition to those listed in Section 3.

Section 10 Stability and reactivity:

Hazard component: Dust
Reactivity data stability: Stable
Conditions/materials to avoid: None
Hazard decomposition products: None

Section 11 Toxicology information:

Health effects:
Eyes: May cause irritation
Skin: Potential for Industrial dermatitis - precautionary measures (see HSE Information Sheet No. 17)
Inhalation: Avoid dust inhalation
Ingestion: None (except Diabetics)
Chronic: None known
Acute toxicity: None
Corrosivity: None
Sensitisation: None
Repeated-dose toxicity: None
Mutagenicity: None
Carcinogenicity: None
Reproductive toxicity: None

Section 12 Ecological information:

Environmental assessment: When used and disposed of as intended, no adverse environmental effects are foreseen (Refer to Sections 6 and 13)

Section 13 Disposal Considerations:

Unused product: Dispose of through an authorised waste contractor to a licensed site or contact British Sugar Technical Department
Used/contaminated product: As for 'unused product'
Packaging: Must be disposed of through an authorised waste contractor

Section 14 Transport information:

This product is not classified as dangerous for transportation

Section 15 Regulatory information:

If you are an employer, it is your duty to tell your employees, and other who may be affected, of any hazards described in this sheet and of any precautions which should be taken

Section 16 Other information:

Training advice: Make the MSDS available to employees and Safety Representatives
Restrictions on use: None
Sources of key data:
Other:

The data and advice given apply when the product is sold for the stated application. Use of the product for applications other than as stated in this sheet may give rise to risks not mentioned. You should not use the product other than for the stated applications, without first seeking advice from British Sugar plc.

If you purchased this product from a third party for use, it is your duty to take all necessary steps to secure that any person handling or using the product, is provided with the information contained in this sheet.