Liquid Sucrose

Material Safety Data Sheet

Date of Issue: 1/13/2016 Revision Date:1/19/2016 Version: 1.0

Section 1 – Chemical Product and company identification

PRODUCT NAME
Liquid Sugar

SYNONYMS
Liquid sugar, Liquid sucrose, food-stuff

PRODUCT USE
Ingredient in food and food preparations.

SUPPLIER
Company: Sucro Can Canada Inc.
Address: 560 Ferguson Avenue North
Hamilton, Ontario
Canada L8L 4Z9
Telephone: 289-799-8966
Email: ksiddiqi@sucrocan.ca
Edited On January 13th, 2016,
By: Quality Supervisor, Sucro Can Canada

Section 2 – Hazards Identification

STATEMENT OF HAZARDOUS NATURE

NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

HAZARD RATINGS

		Min	Max
Flammability:	0	X	
Toxicity:	0	X	
Body Contact:	0	X	
Reactivity:	0	X	
Chronic:	0	X	

Min/Nil=	0
Low=	1
Moderate=	2
High=	3
Extreme=	4

POISONS SCHEDULE
None

RISK SAFETY
None under normal operating conditions. None under normal operating conditions

Section 3 – Composition / Information on ingredients

NAME	CAS	%
sucrose	57-50-1	66-68
water	7732-18-5	32-34

Section 4 – First aid measures

SWALLOWED

□ Immediately give a glass of water. □ First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with eyes:
- Wash out immediately with water.
- If irritation continues, seek medical attention. □ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

□ If skin or hair contact occurs: o Flush skin and hair with running water (and soap if available).
o Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
  □ Other measures are usually unnecessary.

NOTES TO PHYSICIAN

- Treat symptomatically.

Section 5 – Fire Fighting measures

EXTINGUISHING MEDIA

The product contains a substantial proportion of water; therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas. Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances. In such an event consider:

- Foam.
- Dry chemical powder. □
  Carbon dioxide.

FIRE FIGHTING

- Alert Fire Brigade and tell them location and nature of hazard.
- Wear breathing apparatus plus protective gloves for fire only.
- Prevent, by any means available, spillage from entering drains or water courses.
- Use fire fighting procedures suitable for surrounding area.
- DO NOT approach containers suspected to be hot.
- Cool fire exposed containers with water spray from a protected location.
- If safe to do so, remove containers from path of fire. □ Equipment should be thoroughly decontaminated after use.

FIRE/EXPLOSION HAZARD

- The material is not readily combustible under normal conditions.
- However, it will break down under fire conditions and the organic component may burn.
- Not considered to be a significant fire risk.
- Heat may cause expansion or decomposition with violent rupture of containers.
- Decomposes on heating and may produce toxic fumes of carbon monoxide (CO). □ May emit acrid smoke
- Decomposes on heating and produces toxic fumes of: carbon dioxide (CO_2), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

None known.

HAZCHEM

None

PERSONAL PROTECTION

Glasses:	Gloves:	Respirator:
Chemical goggles.	1.NEOPRENE 2.VITON 3.BUTYL	Type A Filter of sufficient capacity

Section 6 – Accidental Release measures

MINOR SPILLS

- Clean up all spills immediately.
- Avoid breathing vapors and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.
- Wipe up.
- Place in a suitable, labeled container for waste disposal.

MAJOR SPILLS

- Minor hazard.
- Clear area of personnel.
- Alert Fire Brigade and tell them location and nature of hazard.
- Control personal contact by using protective equipment as required.
- Prevent spillage from entering drains or water ways.
- Contain spill with sand, earth or vermiculite.
- Collect recoverable product into labeled containers for recycling.
- Absorb remaining product with sand, earth or vermiculite and place in appropriate containers for disposal.
- Wash area and prevent runoff into drains or waterways. □ If contamination of drains or waterways occurs, advise emergency services.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 – Handling and Storage

PROCEDURE FOR HANDLING

- Limit all unnecessary personal contact.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Avoid contact with incompatible materials.
- When handlings, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

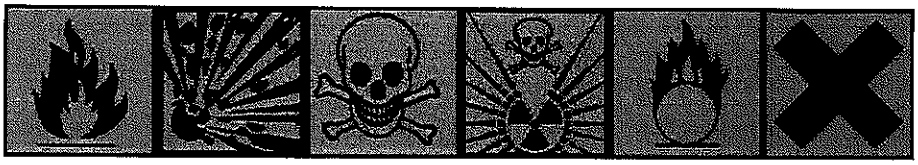
SUITABLE CONTAINER

- Glass container is suitable for laboratory quantities
- □ Polyethylene or polypropylene container.
- Packing as recommended by manufacturer. □ Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY

- Avoid contamination of water, foodstuffs, feed or seed.
- None known.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+	+	+	+	X	+

X: Must not be stored together
O: May be stored together with specific preventions
+: May be stored together

Section 8 – Exposure controls / personal protection

EXPOSURE CONTROLS

Material	TWA ppm	TWA mg/m³	STEL ppm	STEL mg/m³	Peak ppm	Peak mg/m³	TWA F/CC
Sucrose		10					

The following materials had no OELs on our records

• water: CAS:7732-18-5

MATERIAL DATA

LIQUID SUGAR:

None assigned. Refer to individual constituents.

SUCROSE:

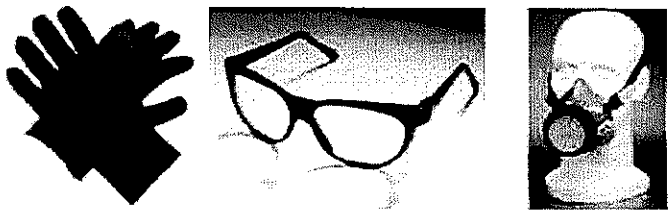
It is the goal to recommend TLVs (or their equivalent) for all substances for which there is evidence of health effects at airborne concentrations encountered in the workplace. At this time no TLV has been established, even though this material may produce adverse health effects (as evidenced in animal experiments or clinical experience). Airborne concentrations must be maintained as low as is practically possible and occupational exposure must be kept to a minimum.

NOTE: The occupational exposure standard for Particles Not Otherwise Specified (P.N.O.S) does NOT apply.
Sucrose has little adverse effect on the lung and does not produce significant organic disease. Massive doses are necessary to produce systemic toxicity. A Finnish study concluded that exposures below 5 mg/m3 should protect dental health, provided worker ingestion of the product was controlled. This finding was prompted by concerns within the bakery and confectionery industry of a connection between sucrose exposure and dental caries.

WATER:

No exposure limits set

Personal protection



EYE

- Safety glasses with side shields
  - Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59]

HANDS/FEET

- Wear general protective gloves, e.g. Light weight rubber gloves. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
  - frequency and duration of contact, o chemical resistance of glove material, o glove thickness and dexterity
- Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739). o When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374) is recommended.
  - When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374) is recommended.
  - Contaminated gloves should be replaced.
- Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a nonperfumed moisturizer is recommended.

OTHER

- No special equipment needed when handling small quantities.

OTHERWISE:

Overalls.
Barrier cream.
Eyewash unit.

GLOVE SELECTION INDEX

The effect(s) of the following substance(s) are taken into account in the computer-generated selection: water

- Protective Material CPI *.
  - NEOPRENE A
  - VITON A
  - BUTYL A o
  - NATURAL RUBBER C
  - PVA C

A: Best Selection
B: Satisfactory; may degrade after 4 hours continuous immersion
C: Poor to Dangerous Choice for other than short term immersion
NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

RESPIRATOR

- Selection of the Class and Type of respirator will depend upon the level of breathing zone contaminant and the chemical nature of the contaminant. Protection Factors (defined as the ratio of contaminant outside and inside the mask) may also be important.

Breathing Zone Level ppm (volume)						Maximum Protection Factor	Half-face Respirator	Full-Face Respirator
1000	10	A-AUS	- 1000	50	- A-AUS			
5000	50	Airline *	- 5000	100	- A-2			
10000						100	-	A-3
						100+		Airline**

* - Continuous Flow ** - Continuous-flow or positive pressure demand.
The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required.

Section 9 – Physical and chemical properties

APPEARANCE

Colourless to pale yellow coloured liquid; mixes with water.

PHYSICAL PROPERTIES

Liquid.
Mixes with water.

State	Liquid	Molecular Weight	Not applicable
Melting Range(°C)	170-180	Viscosity	Notavailable
Boiling Range(°C)	>105	Solubility in water(g/L)	Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not available
Decomposition Temp(°C)	Notavailable	pH (assupplied)	Not available
Autoignition Temp(°C)	500	Vapour Pressure(kPa)	Not available
Upper Explosive Limit(%)	Not applicable	Specific Gravity(water=1)	1.33
Lower Explosive Limit(%)	Not Applicable	Relative Vapour Density(air=1)	Not available
Volatile Component(%vol)	Not available	Evaporation Rate	Not available

Section 10 Chemical stability

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 Toxicological information

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS SWALLOWED

The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be damaging to the health of the individual, following ingestion, especially where pre-existing organ (eg. liver, kidney) damage is evident. Present definitions of harmful or toxic substances are generally based on doses producing mortality rather than those producing morbidity (disease, ill-health). Gastrointestinal tract discomfort may produce nausea and vomiting. In an occupational setting however, ingestion of insignificant quantities is not thought to be cause for concern.

EYE

Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.

INHALED

The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting.

CHRONIC HEALTH EFFECTS

Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimized as a matter of course.

TOXICITY AND IRRITATION

WATER:
LIQUID SUGAR:

No significant acute toxicological data identified in literature search.

Section 12 – Ecological information

Ecotoxicity

Ingredient	Persistence:Water/Soil	Persistence: Air	Bioaccumulation	Mobility
sucrose	LOW		LOW	HIGH

Section 13 – Disposal considerations

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

- Reduction
- Reuse
- Recycling
- Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

- DO NOT allow wash water from cleaning or process equipment to enter drains.
- It may be necessary to collect all wash water for treatment before disposal.
- In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.
- Where in doubt contact the responsible authority.
- Recycle wherever possible.
- Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
- Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material)
- Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

Section 14 – Transportation information

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Section 15 – Regulatory information

Poisons schedule

None

Section 16 – Other information

The MSDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.