

CLIP, Chemical Laboratory Information Profile

"Only when you know the hazards, can you take the necessary precautionary measures."

Sucrose



CAS No.: 57-50-1

Synonyms: saccharose, table sugar, beet sugar, cane sugar

Physical Properties

Exposure Limits

White, sweet tasting, odorless crystals, lumps, or powder.

Vapor pressure at 20 °C: negligible

Melting point: decomposes at approx 165 °C

OSHA PEL: 15 mg/m³ total dust; 5 mg/m³ respirable dust

ACGIH TLV: 10 mg/m³ total dust

Hazardous Characteristics

Overall toxicity	Flammability	Destructive to skin/eye	Absorbed through skin	Sensitizer?	Self-reactive?	Incompatible with:
0	1	0	No	No	No	Strong oxidizing agents

0: None (or very low); 1: Slight; 2: Moderate; 3: High; 4: Severe.

Cited as known to be or reasonably anticipated to be carcinogenic in NTP-9?

No

Identified as a reproductive toxin in Frazier and Hage, *Reproductive Hazards of the Workplace*?

No

Typical symptoms of chronic exposures:

Studies of groups of industrial workers in occupations that could involve high exposures through inhalation and inadvertent or deliberate ingestion, e.g. bakers, candy makers, report incidence of dermatoses and dental caries.

Storage Requirements

With other chemicals in a cool, dry, well-ventilated general storage location.

Additional Remarks

When in the form of fine airborne dust, sucrose will explode if ignited. When "carbonized" by concentrated sulfuric acid, approximately half of the gaseous product is CO, *not* CO₂. Shepard (see reference below) and others report teratogenic effects in some animal studies.

Notes

ReadMe

This Chemical Laboratory Information Profile is *not* a Material Safety Data Sheet. It is a brief summary for teachers and their students that describes some of the hazards of this chemical as it is typically used in laboratories. On the basis of your knowledge of these hazards and before using or handling this chemical, *you need to select the precautions and first-aid procedures to be followed.* For that information as well as for other useful information, refer to Material Safety Data Sheets, container labels, and references in the scientific literature that pertain to this chemical.

Reproductive Toxins

Some substances that in fact are reproductive toxins are not yet recognized as such. For the best readily available and up-to-date information, refer to "DART/ETIC". See the TOXNET home page at www.sis.nlm.nih.gov and click on "Toxicology search". *Note that some of the data in DART/ETIC have not been peer-reviewed.* See also Linda M. Frazier and Marvin L. Hage, *Reproductive Hazards of the Workplace*; Wiley, 1998; and T. H. Shepard, *Catalog of Teratogenic Agents*, 9th ed.; Johns Hopkins University Press, 1998.

Abbreviations

ACGIH TLV—American Conference of Governmental Industrial Hygienists—Threshold Limit Value. C—Ceiling. CAS—Chemical Abstracts Service. mg/m³—milligrams per cubic meter. NA—Not applicable. NE—Not established. NI—No information. NTP-9—National Toxicology Program, Ninth Annual Report on Carcinogens. OSHA PEL—Occupational Safety and Health Administration—Permissible Exposure Limit. ppm—parts per million. STEL/C—Short-term exposure limit and ceiling.

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