

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 1272/2008

Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 00047
Product Name: Brown Sugar Extra
Trade Name: Brown Sugar Extra
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
- 1.3 Details of the Supplier of the Safety Data Sheet:**
Company Name: Perfumer's Apprentice
170 Technology Circle
Scotts Valley, CA 95066
- 1.4 Emergency telephone number:**

Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]:**
Acute Toxicity: Oral, Category 4
Acute Toxicity: Skin, Category 4
Serious Eye Damage/Eye Irritation, Category 2A
Acute Toxicity: Inhalation, Category 3
Target Organ Systemic Toxicity (single exposure), Category 3
Carcinogenicity, Category 2
Target Organ Systemic Toxicity (repeated exposure), Category 2
- 2.1.2 Classification according to Directive 1999/45/EC:**
Xn: Harmful
Risk Phrases: R20/21/22, R36/37/38
For full text of R- phrases: see SECTION 15.
- 2.2 Label Elements:**
- 2.2.1 Labeling according to Regulation (EC) No 1272/2008 [CLP]:**



GHS Signal Word: Danger

GHS Hazard Phrases:

- H302 - Harmful if swallowed.
H312 - Harmful in contact with skin.
H319 - Causes serious eye irritation.
H331 - Toxic if inhaled.
H335 - May cause respiratory irritation.
H351 - Suspected of causing cancer state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard.
H373 - May cause damage to organs through prolonged or repeated exposure.

GHS Precaution Phrases:

- P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P271 - Use only outdoors or in a well-ventilated area.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P281 - Use personal protective equipment as required.

P260 - Do not breathe dust/fume/gas/mist/vapours/spray.

GHS Response Phrases:

P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P330 - Rinse mouth.

P302+352 - IF ON SKIN: Wash with plenty of soap and water.

P312 - Call a POISON CENTER/doctor/... if you feel unwell.

P322 - Specific measures see ... on this label.

P363 - Wash contaminated clothing before reuse.

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+313 - If eye irritation persists, get medical advice/attention.

P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P311 - Call a POISON CENTER/doctor/....

P308+313 - IF exposed or concerned: Get medical attention/advice.

P314 - Get medical attention/advice if you feel unwell.

GHS Storage and Disposal Phrases:

P501 - Dispose of contents/container to

P405 - Store locked up.

P403+233 - Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.

2.2.2 Labeling according to Directive 1999/45/EC:



Xn

2.3 Adverse Human Health Prolonged or repeated contact may result in "vanillism", an allergic dermatitis. Doesn't seem likely upon a closer look since the allergic reaction is caused by a mite in the 'raw vanilla'.
Effects and Symptoms:

Chronic ingestion may cause lactic acidosis and possible seizures.

Chronic: Exposure to large doses may cause central nervous system depression. Exposures to propylene glycol having no adverse effects on the mother should have no effect on the fetus. Birth defects are unlikely. In animal studies, propylene glycol has been shown not to interfere with reproduction. Laboratory experiments have shown mutagenic effects. Chronic exposure may cause blood effects. May cause kidney damage. Exposure to high concentrations may cause central nervous system depression. Animal studies have reported the development of tumors.

2.3.1 Inhalation: Low hazard for normal industrial handling. Inhalation of a mist of this material may cause respiratory tract irritation. Material has a low vapor pressure at room temperature, so exposure to vapor is not likely. Causes respiratory tract irritation. Harmful if inhaled. No hazard expected in normal industrial use. Dust is irritating to the respiratory tract. Skin: May be harmful if absorbed through skin. May cause skin irritation.

2.3.2 Skin Contact: Allergic reactions have been reported. A single prolonged skin exposure is not likely to result in the material being absorbed in harmful amounts. Repeated exposures may cause problems. Negative results have consistently been obtained in guinea pigs studies for sensitization. 1,,2-Propylene glycol is not considered an occupational skin sensitizer. (CHEMINFO) Causes skin irritation. Harmful if absorbed through the skin. Dust may cause mechanical irritation. Low hazard for normal industrial handling.

2.3.3 Eye Contact: May cause slight transient injury. Causes eye irritation. Dust may cause mechanical

irritation. Low hazard for normal industrial handling.

2.3.4 Ingestion: Low hazard for usual industrial handling. May cause hemoglobinuric nephrosis. May cause changes in surface EEG. Harmful if swallowed. May cause irritation of the digestive tract. Additional Information.
RTECS: QJ6950000 Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

Section 3. Composition/Information on Ingredients

CAS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	Risk Phrases/ GHS Classification
57-55-6	Propylene glycol	>=10.0 %	200-338-0 NA	No phrases apply.
765-70-8	1,2-Cyclopentanedione, 3-methyl-	>=10.0 %	212-154-8 NA	No phrases apply.
118-71-8	3-Hydroxy-2-methyl-4-pyrone	1.0 -10.0 %	204-271-8 NA	Xn; R22-36/37/38
98-00-0	Furfuryl alcohol	1.0 -10.0 %	202-626-1 603-018-00-2	T; Ca:3, R21/22-23-36/37-40-48/20 Acute Tox.(O) 4: H302 Acute Tox.(D) 4: H312 Eye Damage 2A: H319 Acute Tox.(I) 3: H331 TOST (SE) 3: H335 H336 Carcinogen 2: H351 TOST (RE) 2: H373
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-	1.0 -10.0 %	204-465-2 NA	No phrases apply.

Section 4. First Aid Measures

4.1 Description of First Aid Measures:

In Case of Inhalation: If inhaled, remove to fresh air. If breathing is difficult, give oxygen. Get medical aid. If breathed in, move person into fresh air. Remove from exposure and move to fresh air immediately. Get medical aid immediately. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Get medical aid if cough or other symptoms appear. Consult a physician.

In Case of Skin Contact: In case of contact, flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical aid if irritation develops and persists. Wash clothing before reuse. Wash off with soap and plenty of water. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Get medical aid if irritation develops or persists. Consult a physician.

In Case of Eye Contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid. Flush eyes with water as a precaution. Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid immediately. Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

In Case of Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Rinse mouth with water. Wash mouth out with water. Get medical aid immediately. Call a poison control center. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Treat

	symptomatically and supportively. Get medical aid if irritation or symptoms occur. Consult a physician.
4.2 Important Symptoms and Effects, Both Acute and Delayed:	To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Note for the Doctor:	Persons with impaired kidney function may be more susceptible to the effects of this substance. Treat symptomatically and supportively. Consult a physician. Show this safety data sheet to the doctor in attendance.

Section 5. Fire Fighting Measures

5.1 Suitable Extinguishing Media:	Use water spray, dry chemical, carbon dioxide, or alcohol-resistant foam. Use water spray, dry chemical, carbon dioxide, or chemical foam. In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use water fog, dry chemical, carbon dioxide, or regular foam.
5.2 Flammable Properties and Hazards:	
Flash Pt:	
Explosive Limits:	LEL: UEL:
Autoignition Pt:	
5.3 Fire Fighting Instructions:	As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Wear self contained breathing apparatus for fire fighting if necessary. Dusts at sufficient concentrations can form explosive mixtures with air. Will burn if involved in a fire. Containers may explode in the heat of a fire. Combustible liquid and vapor. Dust from this material can form explosive organic dust cloud.

Section 6. Accidental Release Measures

6.3 Methods and Material For Containment and Cleaning Up:	Use proper personal protective equipment as indicated in Section 8. Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation. Personal precautions. Avoid dust formation. Avoid breathing vapors, mist or gas. Environmental precautions. Do not let product enter drains. Sweep up and shovel. Keep in suitable, closed containers for disposal. Avoid generating dusty conditions. Do not let this chemical enter the environment. Wear a self contained breathing apparatus and appropriate personal protection. (See Exposure Controls, Personal Protection section). Remove all sources of ignition. Use a spark-proof tool. Use personal protective equipment. Avoid breathing dust. Ensure adequate ventilation. Methods for cleaning up. Pick up and arrange disposal without creating dust. Sweep up or absorb material, then place into a suitable clean, dry, closed container for disposal.
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Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Provide appropriate exhaust ventilation at places where dust is formed. Normal measures for preventive fire protection. Use spark-proof tools and explosion proof equipment. Avoid breathing dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep away from heat, sparks and flame. Do not ingest or inhale. Use only in a chemical fume hood. Minimize dust generation and accumulation. Avoid breathing dust. Avoid formation of dust and aerosols.
- Use only in a well-ventilated area.
- 7.2 Precautions To Be Taken in Storing:** Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances. Store protected from moisture. Keep container tightly closed in a dry and well-ventilated place. Store in a cool, dry place. Keep away from sources of ignition. Recommended storage temperature: 2 - 8 deg.C. Store under inert gas. Keep container closed when not in use.

Section 8. Exposure Controls/Personal Protection

8.1 Exposure Parameters:

CAS #	Partial Chemical Name	Britain EH40	France VL	Europe
57-55-6	Propylene glycol	TWA: 474 mg/m3 (150 ppm) (Total Particulates) TWA: 10 mg/m3 (Powder)		
765-70-8	1,2-Cyclopentanedione, 3-methyl-			
118-71-8	3-Hydroxy-2-methyl-4-pyrone			
98-00-0	Furfuryl alcohol		TWA: 40 mg/m3 (10 ppm)	
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			
CAS #	Partial Chemical Name	OSHA TWA	ACGIH TWA	Other Limits
57-55-6	Propylene glycol			
765-70-8	1,2-Cyclopentanedione, 3-methyl-			
118-71-8	3-Hydroxy-2-methyl-4-pyrone			
98-00-0	Furfuryl alcohol	PEL: 50 ppm	TLV: 10 ppm STEL: 15 ppm	
121-33-5	Benzaldehyde, 4-Hydroxy-3-methoxy-			

8.2 Exposure Controls:

8.2.1 Engineering Controls (Ventilation etc.): Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low. Use explosion-proof ventilation equipment. Use only under a chemical fume hood.

8.2.2 Personal protection equipment:

- Eye Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).
Wear chemical splash goggles. Safety glasses.
- Protective Gloves:** Wear appropriate protective gloves to prevent skin exposure. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash

10.5 Incompatibility - Materials To Avoid:	Strong oxidizing agents, Strong oxidizing agents. acids, Acid chlorides, liquid oxygen.
10.6 Hazardous Decomposition Or Byproducts:	Carbon monoxide, Carbon dioxide, formed under fire conditions. Carbon oxides, irritating and toxic fumes and gases.

Section 11. Toxicological Information

11.1 Information on Toxicological Effects:	<p>Acute toxicity. No data available.</p> <p>Respiratory or skin sensitization: Germ cell mutagenicity. Reproductive toxicity - no data available.</p> <p>Specific target organ toxicity -single exposure (Globally Harmonized System) Specific target organ toxicity -repeated exposure (Globally Harmonized System)</p> <p>Aspiration hazard. Epidemiology: Teratogenicity: No data available.</p> <p>Reproductive Effects: Mutagenicity: Neurotoxicity: Other Studies: Tumorigenic effects have been reported in experimental animals.</p> <p>Teratogenicity: No information available. No information found.</p> <p>Mutagenic effects have occurred in experimental animals.</p> <p>Experimental mutagen in human lymphocyte cells.</p>
Irritation or Corrosion:	No data available.
Carcinogenicity/Other Information:	<p>CAS# 57-55-6: Not listed by ACGIH, IARC, NTP, or CA Prop 65. Carcinogenicity.</p> <p>IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.</p> <p>ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.</p> <p>NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.</p> <p>OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. CAS# 118-71-8: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 98-00-0: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 121-33-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65. CAS# 120-14-9: Not listed by ACGIH, IARC, NTP, or CA Prop 65.</p>
Carcinogenicity:	NTP? No IARC Monographs? No OSHA Regulated? No

Section 12. Ecological Information

12.1 Toxicity:	<p>Ecotoxicity: Water flea Daphnia: EC50 10000 mg/L; 48 HrUnspecified, Bacteria: Phytobacterium phosphoreum: EC50 = 710 mg/L; 30 min; Microtox testFish: Goldfish: LC50 5000 mg/L; 24 Hr; UnspecifiedFish: Guppy: LC50 1000 mg/L; 48 Hr; Unspecified If released to water, 1,2-propanediol is expected to degrade relatively rapidly via biodegradation. If released to soil, relatively rapid biodegradation should also occur. Significant leaching in soil can be predicted.</p> <p>Environmental: If released to the atmosphere, it is degraded rapidly by reaction with photochemically produced hydroxyl radicals (typical half-life of 32 hr). Physical removal from air by rainfall is possible.</p> <p>Physical: No information available.</p> <p>Other: No information available. No information available.</p> <p>Other: Do not empty into drains. If released to water, it will not be expected to adsorb to sediment or suspended particulate matter or to bioconcentrate in aquatic organisms. It may directly photolyze in surface water. It may be subject to biodegradation in natural waters. Furfuryl alcohol is expected to exist mainly in the vapor-phase in the ambient atmosphere. The estimated atmospheric half-life for vapor-phase reaction with photochemically produced hydroxyl radical with a half-life of 3.7hours.</p>
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- 12.2 Persistence and Degradability:** No data available.
- 12.3 Bioaccumulative Potential:** No data available.
- 12.4 Mobility in Soil:** No data available.

Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.
RCRA P-Series: None listed.
RCRA U-Series: None listed. Product.
Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated packaging.
Dispose of as unused product. Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Section 14. Transport Information

14.1 LAND TRANSPORT (US DOT):

DOT Proper Shipping Name: Furfuryl alcohol. mixture.
DOT Hazard Class: 6.1 POISON
UN/NA Number: UN2874 **Packing Group:** III

14.1 LAND TRANSPORT (Canadian TDG):

TDG Shipping Name: Not Regulated. FURFURYL ALCOHOL. No information available.

14.1 LAND TRANSPORT (European ADR/RID):

ADR/RID Shipping Name: Not dangerous goods.
UN Number: 2874 **Packing Group:** III
Hazard Class: 6.1 - POISON

14.2 MARINE TRANSPORT (IMDG/IMO):

IMDG/IMO Shipping Name: Not dangerous goods.

14.3 AIR TRANSPORT (ICAO/IATA):

ICAO/IATA Shipping Name: Furfuryl alcohol. mixture.

Section 15. Regulatory Information

SAFETY DATA SHEET

Brown Sugar Extra

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European Community Hazard Symbol codes:

European Community Risk and Safety Phrases:

R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R36/37/38	Irritating to eyes, respiratory system and skin.
S24/25	Avoid contact with skin and eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S22	Do not breathe dust.

Section 16. Other Information

Revision Date: 03/24/2014

Additional Information About
This Product: