

JUL 24 2003

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 INDEX: H31963909 CAT NO: BP220-212 PO NBR: VS 7-15-03

**** MATERIAL SAFETY DATA SHEET ****

D(+)-Sucrose
 22174

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: D(+)-Sucrose
 Catalog Numbers: S71203, S71204, BP220-1, BP220-10, BP220-212, S3-12, S3-212, S3-500, S5-3, S5-500, S512
 Synonyms: Beet sugar; cane sugar; saccharose; table sugar.
 Company Identification: Fisher Scientific
 1 Reagent Lane
 Fairlawn, NJ 07410
 For information, call: 201-796-7100
 Emergency Number: 201-796-7100
 For CHEMTREC assistance, call: 800-424-9300
 For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
57-50-1	Sucrose	100	200-334-9

Hazard Symbols: None Listed.
 Risk Phrases: None Listed.

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: white solid.
 Caution! May cause respiratory tract irritation. This is expected to be a low hazard for usual industrial handling. May cause eye and skin irritation.
 Target Organs: Lungs.

Potential Health Effects

Eye: Dust may cause mechanical irritation.
 Skin: May cause skin irritation. Low hazard for usual industrial handling.
 Ingestion: Not available. Hydrolysis of sucrose yields invert sugar composed of equal parts fructose and glucose. Sugar is an important source of metabolic energy in foods and its formation in plants is an essential factor in the life process.
 Inhalation: Excessive inhalation may cause minor respiratory irritation.
 Chronic: Chronic inhalation of fine dusts may cause lung damage.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes: Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
 Skin: Get medical aid if irritation develops or persists. Flush skin with plenty of soap and water.
 Ingestion: Do NOT induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Get medical aid if irritation or symptoms occur.
 Inhalation: Remove from exposure to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid if cough or other symptoms appear.
 Notes to Physician: Treat symptomatically and

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information: Wear appropriate protective clothing to prevent contact with skin and eyes. Wear a self-contained breathing apparatus (SCBA) to prevent contact with thermal decomposition products. This material in sufficient quantity and reduced particle size is capable of creating a dust explosion.
 Extinguishing Media: Use extinguishing media most appropriate for the surrounding fire.
 Autoignition Temperature: Not applicable.
 Flash Point: Not applicable.
 Explosion Limits, lower: Not available.
 Explosion Limits, upper: Not available.

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NFPA Rating: (estimated) Health: 1; Flammability: 1; Instability: 0

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

**** SECTION 7 - HANDLING and STORAGE ****

Handling: Use with adequate ventilation. Minimize dust generation and accumulation.
 Storage: Store in a cool, dry, well-ventilated area away from incompatible substances.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls: Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Sucrose	10 mg/m3	10 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable dust)	15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

OSHA Vacated PELs:
 Sucrose:
 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)

Personal Protective Equipment

Eyes: 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.
 Skin: Wear appropriate gloves to prevent skin exposure.
 Clothing: Wear appropriate protective clothing to minimize contact with skin.
 Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Solid
 Color: white
 Odor: odorless
 pH: Not available.
 Vapor Pressure: Not available.
 Vapor Density: Not available.
 Evaporation Rate: Not available.
 Viscosity: Not available.
 Boiling Point: Not available.
 Freezing/Melting Point: 190-192 deg C (dec)
 Decomposition Temperature: 190-192 deg C
 Solubility in water: 1970 G/L WATER (15&C)
 Specific Gravity/Density:
 Molecular Formula: C12H22O11
 Molecular Weight: 342.29

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability: Stable
 Conditions to Avoid: Dust generation, excess heat.
 Incompatibilities with Other Materials: Strong oxidizers.
 Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
 Hazardous Polymerization: Has not been reported.

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**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
 CAS# 57-50-1: WN6500000
 LD50/LC50:
 Not available.
 Carcinogenicity:
 Sucrose -
 ACGIH: A4 - Not Classifiable as a Human Carcinogen
 Epidemiology:
 No information available.
 Teratogenicity:
 No information available.
 Reproductive Effects:
 No information available.
 Neurotoxicity:
 No information available.
 Mutagenicity:
 No information available.
 Other Studies:
 See actual entry in RTECS for complete information.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Other
 No information available.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

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 261.3. 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.

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
 No information available
 Canadian TDG
 No information available.

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL
 TSCA
 CAS# 57-50-1 is listed on the TSCA inventory.
 Health & Safety Reporting List
 None of the chemicals are on the Health & Safety Reporting List.
 Chemical Test Rules
 None of the chemicals in this product are under a Chemical Test Rule.
 Section 12b
 None of the chemicals are listed under TSCA Section 12b.
 TSCA Significant New Use Rule
 None of the chemicals in this material have a SNUR under TSCA.
 SARA
 CERCLA Hazardous Substances and corresponding RQs
 None of the chemicals in this material have an RQ.
 SARA Section 302 Extremely Hazardous Substances
 None of the chemicals in this product have a TPQ.
 SARA Codes
 CAS # 57-50-1: acute, flammable.
 Section 313
 No chemicals are reportable under Section 313.
 Clean Air Act:
 This material does not contain any hazardous air pollutants.
 This material does not contain any Class 1 Ozone depleters.
 This material does not contain any Class 2 Ozone depleters.
 Clean Water Act:
 None of the chemicals in this product are listed as Hazardous Substances under the CWA.
 None of the chemicals in this product are listed as Priority Pollutants under the CWA.
 None of the chemicals in this product are listed as Toxic Pollutants under the CWA.
 OSHA:
 None of the chemicals in this product are considered highly hazardous by OSHA.
 STATE
 Sucrose can be found on the following state right to know lists:
 Pennsylvania, Minnesota, Massachusetts.
 California No Significant Risk Level:
 None of the chemicals in this product are listed.
 European/International Regulations
 European Labeling in Accordance with EC Directives
 Hazard Symbols: Not available.

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Risk Phrases:
 Safety Phrases:
 WGK (Water Danger/Protection)
 CAS# 57-50-1: 0
 United Kingdom Occupational Exposure Limits
 CAS# 57-50-1: OES-United Kingdom, TWA 10 mg/m3 TWA
 CAS# 57-50-1: OES-United Kingdom, STEL 20 mg/m3 STEL
 United Kingdom Maximum Exposure Limits

Canada
 CAS# 57-50-1 is listed on Canada's DSL List.
 This product has a WHMIS classification of Not controlled..
 CAS# 57-50-1 is not listed on Canada's Ingredient Disclosure List.
 Exposure Limits
 CAS# 57-50-1: OEL-AUSTRALIA:TWA 10 mg/m3
 OEL-BELGIUM:TWA 10 mg/m3
 OEL-FRANCE:TWA 10 mg/m3
 OEL-UNITED KINGDOM:TWA 10 mg/m3
 OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
 OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

MSDS Creation Date: 3/05/1999 Revision #2 Date: 10/29/2001

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

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**** MATERIAL SAFETY DATA SHEET ****

Xylenes, mixed isomers with ethylbenzene, 96%
 25150

**** SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ****

MSDS Name: Xylenes, mixed isomers with ethylbenzene, 96%

Catalog Numbers:

S71223, S71232, S71233, HC7001GAL, S98204, X16-4, X3FB50, X3P-1GAL,
 X3P1GALLC, X3POP50, X3S-20, X3S-200, X3S-4, X4-20, X4-4, X4S-1GAL, X5-1,
 X5-20, X5-200, X5-4, X5-500, X5FB115, X5FB19, X5FB200, X5FB28, X5FB50,
 X5P-1GAL, X5POP19, X5POP200, X5POP50, X5POPB19, X5POPB200, X5POPB50,
 X5RB115, X5RB19, X5RB200, X5RB50, X5RS115, X5RS200, X5RS28, X5RS50, X5S-4,
 X5SK-4, X5SS115, X5SS19, X5SS200, X5SS28, X5SS50

Synonyms:

Dimethylbenzene; Benzene, dimethyl-; Xylol; Methyltoluene.

Company Identification: Fisher Scientific
 1 Reagent Lane
 Fairlawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

**** SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ****

CAS#	Chemical Name	%	EINECS#
100-41-4	Ethylbenzene	Balance	202-849-4
1330-20-7	Xylenes (o-, m-, p- isomers)	96.0	215-535-7

Hazard Symbols: XN
 Risk Phrases: 10 20/21 38

**** SECTION 3 - HAZARDS IDENTIFICATION ****

EMERGENCY OVERVIEW

Appearance: clear, colorless liquid. Flash Point: 25 deg C.
 Warning! Flammable liquid and vapor. Causes respiratory tract
 irritation. Causes eye irritation. This substance has caused adverse
 reproductive and fetal effects in animals. May cause central nervous
 system depression. Aspiration hazard if swallowed. Can enter lungs
 and cause damage. May cause liver and kidney damage. May be harmful
 if absorbed through skin or if inhaled. Prolonged or repeated contact
 may dry the skin and cause irritation.
 Target Organs: Blood, kidneys, central nervous system, liver, lungs,
 eyes, skin, mucous membranes.

Potential Health Effects

Eye:

Causes severe eye irritation. Splashes of xylene in human eyes
 generally cause transient superficial injury.

Skin:

May be harmful if absorbed through the skin. Xylene contact causes
 defatting of the skin with irritation, dryness, and cracking.
 Blistering may occur, particularly if exposure to concentrated xylene
 is prolonged and the exposed area of skin is occluded.

Ingestion:

Aspiration hazard. May cause irritation of the digestive tract. May
 cause central nervous system depression, characterized by
 excitement, followed by headache, dizziness, drowsiness, and nausea.
 Advanced stages may cause collapse, unconsciousness, coma and
 possible death due to respiratory failure. May cause effects similar
 to those of acute inhalation.

Inhalation:

Inhalation of high concentrations may cause central nervous system
 effects characterized by nausea, headache, dizziness, unconsciousness
 and coma. Prolonged exposure may result in dizziness and general
 weakness. Irritation may lead to chemical pneumonitis and pulmonary
 edema. May cause liver and kidney damage. Causes irritation of
 mucous membrane. Exposure may cause blood abnormalities. Odor is not
 an adequate warning for overexposure to xylene.

Chronic:

Chronic exposure to xylene may cause defatting dermatitis,
 reversible eye damage, dyspnea (labored breathing), confusion,
 dizziness, apprehension, memory loss, headache, tremors, weakness,
 anorexia, nausea, ringing in the ears, irritability, thirst, mild
 changes in liver function, kidney impairment, anemia, and
 hyperplasia, but not destruction, of the bone marrow.

**** SECTION 4 - FIRST AID MEASURES ****

Eyes:

In case of contact, immediately flush eyes with plenty of water for
 at least 15 minutes. Get medical aid.

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Skin:

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.

Ingestion:

Potential for aspiration if swallowed. Get medical aid immediately.
 Do not induce vomiting unless directed to do so by medical
 personnel. Never give anything by mouth to an unconscious person.

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial
 respiration. If breathing is difficult, give oxygen. Get medical aid.

Notes to Physician:

Treat symptomatically and supportively.

**** SECTION 5 - FIRE FIGHTING MEASURES ****

General Information:

As in any fire, wear a self-contained breathing apparatus in
 pressure-demand, MSHA/NIOSH (approved or equivalent), and full
 protective gear. Flammable liquid and vapor. Vapors may form an
 explosive mixture with air. Vapors are heavier than air and may
 travel to a source of ignition and flash back. Vapors can spread
 along the ground and collect in low or confined areas. This liquid
 floats on water and may travel to a source of ignition and spread
 fire. May accumulate static electricity.

Extinguishing Media:

Use water spray to cool fire-exposed containers. Water may be
 ineffective. This material is lighter than water and insoluble in
 water. The fire could easily be spread by the use of water in an
 area where the water cannot be contained. Use water spray, dry
 chemical, carbon dioxide, or appropriate foam.

Autoignition Temperature:

527 deg C (980.60 deg F)

Flash Point:

25 deg C (77.00 deg F)

Explosion Limits, lower:

1.1%

Explosion Limits, upper:

7.0%

NFPA Rating: (estimated) Health:

2; Flammability: 3; Instability: 0

**** SECTION 6 - ACCIDENTAL RELEASE MEASURES ****

General Information:

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. Remove all sources of ignition.
 Provide ventilation. A vapor suppressing foam may be used to reduce
 vapors. Water spray may reduce vapor but may not prevent ignition in
 closed spaces. U.S. regulations require reporting spills and releases
 to soil, water and air in excess of reportable quantities. This
 material creates a fire hazard because it floats on water. If
 possible, try to contain floating material.

**** SECTION 7 - HANDLING and STORAGE ****

Handling:

Wash thoroughly after handling. Remove contaminated clothing and
 wash before reuse. Ground and bond containers when transferring
 material. Avoid contact with eyes, skin, and clothing. Empty
 containers retain product residue, (liquid and/or vapor), and can be
 dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind,
 or expose empty containers to heat, sparks or open flames. Use only
 with adequate ventilation. Keep away from heat, sparks and flame.
 Avoid breathing vapor or mist.

Storage:

Keep away from sources of ignition. Keep container closed when not
 in use. Keep from contact with oxidizing materials. Store in a cool,
 dry, well-ventilated area away from incompatible substances. Keep
 away from strong acids.

**** SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ****

Engineering Controls:

Facilities storing or utilizing this material should be equipped
 with an eyewash facility and a safety shower. Use adequate general or
 local exhaust ventilation to keep airborne concentrations below the
 permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethylbenzene	100 ppm; 125 ppm STEL	100 ppm TWA; 435 mg/m ³ TWA 800 ppm IDLH	100 ppm TWA; 435 mg/m ³ TWA
Xylenes (o-, m-, p- isomers)	100 ppm; 150 ppm STEL	900 ppm IDLH	100 ppm TWA; 435 mg/m ³ TWA

OSHA Vacated PELs:

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Ethylbenzene:
 100 ppm TWA; 435 mg/m³ TWA
 Xylenes (o-, m-, p- isomers):
 100 ppm TWA; 435 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear chemical goggles.
 Skin: Wear appropriate protective gloves to prevent skin exposure.
 Clothing: Wear appropriate protective clothing to prevent skin exposure.
 Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**** SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES ****

Physical State: Liquid
 Color: clear, colorless
 Odor: Aromatic odor
 pH: Not applicable.
 Vapor Pressure: 6.72 mm Hg @ 21 deg C
 Vapor Density: 3.66 (Air=1)
 Evaporation Rate: 0.77
 Viscosity: <32.6 SUS
 Boiling Point: 138.5-141.5 deg C
 Freezing/Melting Point: -47.4 deg C
 Decomposition Temperature:
 Solubility in water: Insoluble.
 Specific Gravity/Density: 0.864 @ 20%/4°C
 Molecular Formula: C8H10
 Molecular Weight: 106.17

**** SECTION 10 - STABILITY AND REACTIVITY ****

Chemical Stability: Stable under normal temperatures and pressures.
 Conditions to Avoid: High temperatures, ignition sources.
 Incompatibilities with Other Materials: Strong oxidizing agents, strong acids, acetic acid, nitric acid.
 Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.
 Hazardous Polymerization: Will not occur.

**** SECTION 11 - TOXICOLOGICAL INFORMATION ****

RTECS#:
 CAS# 100-41-4: DA0700000
 CAS# 1330-20-7: ZE2100000
 LD50/LC50:
 CAS# 100-41-4: Draize test, rabbit, eye: 500 mg Severe; Oral, rat:
 LD50 = 3500 mg/kg; Skin, rabbit: LD50 = 17800 uL/kg.
 CAS# 1330-20-7.
 Carcinogenicity:
 Ethylbenzene -
 ACGIH: A3 - Animal Carcinogen
 OSHA: Possible Select carcinogen
 IARC: Group 2B carcinogen
 Xylenes (o-, m-, p- isomers) -
 ACGIH: A4 - Not Classifiable as a Human Carcinogen
 IARC: Group 3 carcinogen
 Epidemiology: No information available.
 Teratogenicity: No information available.
 Reproductive Effects: There is ample evidence that xylene produces embryotoxicity (reduced body weight, retarded ossification, retarded kidney development, increased extra rib) and fetotoxicity in mice and rats, but xylene is not considered teratogenic.
 Neurotoxicity: No information available.
 Mutagenicity: No information available.
 Other Studies: No data available.

**** SECTION 12 - ECOLOGICAL INFORMATION ****

Ecotoxicity:
 Fish: Rainbow trout: LC50 = 13.5 mg/L; 96 Hr; UnspecifiedFish:
 Goldfish: LD50 = 13 mg/L; 24 Hr; UnspecifiedFish: Fathead Minnow:

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LC50 = 46 mg/L; 1 Hr; Static bioassay Acute and long-term toxicity to fish and invertebrates: LD50 for goldfish is 13 mg/L/24 Hr. Cas#1330-20-7: LC50(96Hr.) rainbow trout = 8.05 mg/L, Static condition; LC50(96Hr.) fathead minnow = 16.1 mg/L, flow-through conditions; LC50(96Hr.) bluegill = 16.1 mg/L, flow-through; EC50 (48 Hr.) water flea = 3.82 mg/L, flow-through conditions; EC50(24 Hr.) photobacterium phosphoreum = 0.0084 mg/L, Microtox test.

**** SECTION 13 - DISPOSAL CONSIDERATIONS ****

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 261.3. 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: CAS# 1330-20-7; waste number U239 (Ignitable waste, Toxic waste).

**** SECTION 14 - TRANSPORT INFORMATION ****

US DOT
 Shipping Name: XYLENES
 Hazard Class: 3
 UN Number: UN1307
 Packing Group: III
 Canadian TDG
 Shipping Name: XYLENES
 Hazard Class: 3
 UN Number: UN1307
 Other Information: FLASHPOINT 27 C

**** SECTION 15 - REGULATORY INFORMATION ****

US FEDERAL

TSCA
 CAS# 100-41-4 is listed on the TSCA inventory.
 CAS# 1330-20-7 is listed on the TSCA inventory.
 Health & Safety Reporting List
 CAS# 100-41-4: Effective Date: 6/19/87; Sunset Date: 6/19/97
 Chemical Test Rules
 None of the chemicals in this product are under a Chemical Test Rule.
 Section 12b
 None of the chemicals are listed under TSCA Section 12b.
 TSCA Significant New Use Rule
 None of the chemicals in this material have a SNUR under TSCA.

SARA

CERCLA Hazardous Substances and corresponding RQs
 CAS# 100-41-4: 1000 lb final RQ; 454 kg final RQ
 CAS# 1330-20-7: 100 lb final RQ; 45.4 kg final RQ
 SARA Section 302 Extremely Hazardous Substances
 None of the chemicals in this product have a TPQ.
 SARA Codes
 CAS # 100-41-4: acute, chronic, flammable.
 CAS # 1330-20-7: acute, chronic, flammable.
 Section 313
 This chemical is not at a high enough concentration to be reportable under Section 313.
 This material contains Xylenes (o-, m-, p- isomers) (CAS# 1330-20-7, 96 0%), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 372.
 Clean Air Act:
 CAS# 100-41-4 is listed as a hazardous air pollutant (HAP).
 CAS# 1330-20-7 is listed as a hazardous air pollutant (HAP).
 This material does not contain any Class 1 Ozone depletors.
 This material does not contain any Class 2 Ozone depletors.
 Clean Water Act:
 CAS# 100-41-4 is listed as a Hazardous Substance under the CWA.
 CAS# 1330-20-7 is listed as a Hazardous Substance under the CWA.
 CAS# 100-41-4 is listed as a Priority Pollutant under the Clean Water Act.
 CAS# 100-41-4 is listed as a Toxic Pollutant under the Clean Water Act.
 OSHA:
 None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

Ethylbenzene can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
 Xylenes (o-, m-, p- isomers) can be found on the following state right to know lists: California, New Jersey, Florida, Pennsylvania, Minnesota, Massachusetts.
 California No Significant Risk Level:
 None of the chemicals in this product are listed.
 European/International Regulations
 European Labeling in Accordance with EC Directives
 Hazard Symbols: XN

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Risk Phrases:

R 10 Flammable.
R 20/21 Harmful by inhalation and in contact with skin.
R 38 Irritating to skin.

Safety Phrases:

S 25 Avoid contact with eyes.

WGK (Water Danger/Protection)

CAS# 100-41-4: 1
CAS# 1330-20-7: 2

United Kingdom Occupational Exposure Limits

CAS# 100-41-4: OES-United Kingdom, TWA 100 ppm TWA; 441 mg/m3 TWA
CAS# 100-41-4: OES-United Kingdom, STEL 125 ppm STEL; 552 mg/m3 STEL
CAS# 1330-20-7: OES-United Kingdom, TWA 50 ppm TWA; 220 mg/m3 TWA
CAS# 1330-20-7: OES-United Kingdom, STEL 100 ppm STEL; 441 mg/m3 STEL

United Kingdom Maximum Exposure Limits

Canada

CAS# 100-41-4 is listed on Canada's DSL List.
CAS# 1330-20-7 is listed on Canada's DSL List.
This product does not have a WHMIS classification.
CAS# 100-41-4 is listed on Canada's Ingredient Disclosure List.
CAS# 1330-20-7 is not listed on Canada's Ingredient Disclosure List.

Exposure Limits

CAS# 100-41-4: OEL-AUSTRALIA:TWA 100 ppm (435 mg/m3);STEL 125 ppm (545 mg/m3)
OEL-BELGIUM:TWA 100 ppm (434 mg/m3);STEL 125 ppm (543 mg/m3)
OEL-CZECHOSLOVAKIA:TWA 200 mg/m3;STEL 1000 mg/m3
OEL-DENMARK:TWA 50 ppm (217 mg/m3)
OEL-FINLAND:TWA 100 ppm (435 mg/m3);STEL 150 ppm (655 mg/m3)
OEL-FRANCE:TWA 100 ppm (435 mg/m3)
OEL-GERMANY:TWA 100 ppm (440 mg/m3);Skin
OEL-HUNGARY:TWA 100 mg/m3;STEL 200 mg/m3;Skin
OEL-JAPAN:TWA 100 ppm (430 mg/m3)
OEL-THE NETHERLANDS:TWA 100 ppm (435 mg/m3)
OEL-THE PHILIPPINES:TWA 100 ppm (435 mg/m3)
OEL-POLAND:TWA 100 mg/m3
OEL-RUSSIA:TWA 100 ppm (200 mg/m3);STEL 50 mg/m3
OEL-SWEDEN:TWA 50 ppm (200 mg/m3);STEL 100 ppm (450 mg/m3)
OEL-SWITZERLAND:TWA 100 ppm (435 mg/m3);STEL 500 ppm
OEL-TURKEY:TWA 100 ppm (435 mg/m3)
OEL-UNITED KINGDOM:TWA 100 ppm (435 mg/m3);STEL 125 ppm
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV
CAS# 1330-20-7: OEL-ARAB Republic of Egypt:TWA 0.5 ppm (0.9 mg/m3)
OEL-AUSTRALIA:TWA 80 ppm (330 mg/m3);STEL 150 ppm (655 mg/m3)
OEL-BELGIUM:TWA 100 ppm (434 mg/m3);STEL 150 ppm (651 mg/m3)
OEL-CZECHOSLOVAKIA:TWA 200 mg/m3;STEL 1000 mg/m3
OEL-DENMARK:TWA 50 ppm (217 mg/m3);Skin
OEL-FINLAND:TWA 100 ppm (435 mg/m3);STEL 150 ppm;Skin
OEL-FRANCE:TWA 100 ppm (435 mg/m3);STEL 150 ppm (650 mg/m3)
OEL-GERMANY:TWA 100 ppm (440 mg/m3)
OEL-HUNGARY:TWA 100 mg/m3;STEL 300 mg/m3
OEL-JAPAN:TWA 100 ppm (430 mg/m3)
OEL-THE NETHERLANDS:TWA 100 ppm (435 mg/m3);Skin
OEL-THE PHILIPPINES:TWA 0.1 mg/m3
OEL-POLAND:TWA 100 mg/m3
OEL-SWEDEN:TWA 50 ppm (200 mg/m3);STEL 100 ppm (450 mg/m3);Skin
OEL-SWITZERLAND:TWA 100 ppm (436 mg/m3);STEL 200 ppm (870 mg/m3)
OEL-THAILAND:TWA 100 ppm (435 mg/m3)
OEL-TURKEY:TWA 100 ppm (435 mg/m3)
OEL-UNITED KINGDOM:TWA 100 ppm (435 mg/m3);STEL 150 ppm;Skin
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA check ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM check ACGI TLV

**** SECTION 16 - ADDITIONAL INFORMATION ****

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