Safety Data Sheet Firestone Building Products Company

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

1.1 Product identifier

Product Name • **EcoWhite™ EPDM Splice Adhesive**

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Construction Adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer • Firestone Building Products Company

200 4th Avenue S
Nashville, TN 37201-2208
United States

firestonemsds@bfdp.com

Telephone (General) • 800-428-4442

1.4 Emergency telephone number

Manufacturer • (800) 424-9300 - CHEMTREC

Manufacturer • (703) 527-3887 - CHEMTREC - International

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]
According to: EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP • Flammable Liquids 2 - H225
Aspiration 1 - H304
Skin Irritation 2 - H315
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects - H336
Reproductive Toxicity 2 - H361fd
Specific Target Organ Toxicity Repeated Exposure 2 - H373
Hazardous to the aquatic environment Chronic 2 - H411

DSD/DPD • Highly Flammable (F)
Harmful (Xn)
Irritant (Xi)
Substances Toxic To Reproduction - Category 3
Dangerous to the Environment (N)
R11, R38, R48/20, R62, R63, R65, R67, R51, R53

2.2 Label Elements

CLP

DANGER

Hazard statements

- H225 - Highly flammable liquid and vapour
- H304 - May be fatal if swallowed and enters airways
- H315 - Causes skin irritation
- H336 - May cause drowsiness or dizziness
- H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
- H373 - May cause damage to organs through prolonged or repeated exposure.
- H411 - Toxic to aquatic life with long lasting effects

Precautionary statements

Prevention

- P201 - Obtain special instructions before use.
- P202 - Do not handle until all safety precautions have been read and understood.
- P210 - Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
- P233 - Keep container tightly closed.
- P240 - Ground and/or bond container and receiving equipment.
- P241 - Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 - Use only non-sparking tools.
- P243 - Take precautionary measures against static discharge.
- P260 - Do not breathe mist/vapours/spray.
- P264 - Wash thoroughly after handling.
- P271 - Use only outdoors or in a well-ventilated area.
- P280 - Wear protective gloves and eye/face protection , .
- P281 - Use personal protective equipment as required.

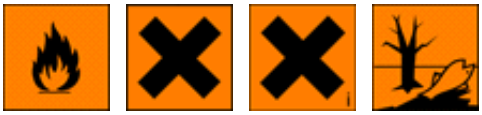
Response

- P370+P378 - In case of fire: Use appropriate media for extinction.
- P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
- P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P363 - Wash contaminated clothing before reuse.
- P332+P313 - If skin irritation occurs: Get medical advice/attention.
- P321 - Specific treatment, see supplemental first aid information.
- P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P331 - Do NOT induce vomiting.
- P308+P313 - IF exposed or concerned: Get medical advice/attention.
- P314 - Get medical advice/attention if you feel unwell.
- P391 - Collect spillage.

Storage/Disposal

- P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
- P235 - Keep cool.
- P501 - Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

DSD/DPD



Risk phrases

- R11 - Highly flammable.
- R38 - Irritating to skin.
- R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- R62 - Possible risk of impaired fertility.
- R63 - Possible risk of harm to the unborn child.
- R65 - Harmful: may cause lung damage if swallowed.
- R67 - Vapours may cause drowsiness and dizziness.
- R51 - Toxic to aquatic organisms.
- R53 - May cause long-term adverse effects in the aquatic environment.

Safety phrases

- S9 - Keep container in a well ventilated place
- S16 - Keep away from sources of ignition - No Smoking.

S37 - Wear suitable gloves.
S57 - Use appropriate containment to avoid environmental contamination.

2.3 Other Hazards

CLP
- According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD
- According to European Directive 1999/45/EC this material is considered dangerous.

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012
- Flammable Liquids 2
Acute Toxicity Oral 4
Aspiration 1
Skin Irritation 2
Eye Irritation 2
Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects
Germ Cell Mutagenicity 1B
Carcinogenicity 2
Reproductive Toxicity 1B
Specific Target Organ Toxicity Repeated Exposure 1
Specific Target Organ Toxicity Repeated Exposure 2

2.2 Label elements

OSHA HCS 2012

DANGER

Hazard statements
- Highly flammable liquid and vapour
Harmful if swallowed
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
May cause genetic defects.
Suspected of causing cancer.
May damage fertility or the unborn child.
Causes damage to organs - Central Nervous System through prolonged or repeated exposure
May cause damage to organs - Nervous System through prolonged or repeated exposure

Precautionary statements

Prevention
- Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, sparks, open flames and/or hot surfaces. - No smoking.
Keep container tightly closed.
Ground and/or bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe mist/vapours/spray.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.

Response • In case of fire: Use appropriate media for extinction.
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If skin irritation occurs: Get medical advice/attention.
Specific treatment, see supplemental first aid information.
Do NOT induce vomiting.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician if you feel unwell.
Rinse mouth.
IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.

Storage/Disposal • Store in a well-ventilated place. Keep container tightly closed.
Keep cool.
Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Supplemental information • (Oral) 0-5 percent of this product consists of an ingredient of unknown toxicity.

2.3 Other hazards

OSHA HCS 2012 • Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to: WHMIS

2.1 Classification of the substance or mixture

WHMIS
- Flammable Liquids - B2
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

2.2 Label elements

WHMIS •

WHMIS
- Flammable Liquids - B2
  Other Toxic Effects - D2A
  Other Toxic Effects - D2B

2.3 Other hazards

WHMIS
- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

Composition					
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**	**Comments**
Toluene	**CAS:**108-88-3 **EC Number:**203-625-9 **EU Index:**601-021-00-3	25% TO 50%	Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg	**EU DSD/DPD:** Annex VI, Table 3.2: F R11 Xn R48/20-65 Xi R38 Repr. Cat. 3 R63 R67 **EU CLP:** Annex VI, Table 3.1: Flam. Liq. 2, H225; Skin Irrit. 2, H315; Repr. 2, H361d; STOT SE 3: Narc., H336; STOT RE 2, H373; Asp. Tox. 1, H304 **OSHA HCS 2012:** Flam. Liq. 2; Acute Tox. 4 (oral); Skin Irrit. 2; Eye Irrit. 2; Muta. 1B; Repr. 2; STOT SE 3: Narc.; STOT RE 1 (CNS, Inhl); Asp. Tox. 1	NDA
Hexane	**CAS:**110-54-3 **EC Number:**203-777-6 **EU Index:**601-037-00-0	5% TO 20%	Ingestion/Oral-Rat LD50 • 25 g/kg Inhalation-Rat LC50 • 48000 ppm 4 Hour(s)	**EU DSD/DPD:** Annex VI, Table 3.2: F R11 Xi R38 N R51-53 Repr.Cat.3 R62 Xn R65-48/20 R67 **EU CLP:** Annex VI, Table 3.1: :Flam. Liq. 2, H225; Repr. 2, H361f; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336; Aquatic Chronic 2, H411 **OSHA HCS 2012:** Flam. Liq. 2; Repr. 2; STOT RE 2 (CNS & Nervous System); Skin Irrit. 2; Eye Irrit. 2; STOT SE 3: Narc. & Resp. Irrit.; Asp. Tox. 1	NDA
Xylene	**CAS:**1330-20-7 **EC Number:**215-535-7 **EU Index:**601-022-00-9	2.5% TO 10%	Ingestion/Oral-Rat LD50 • 4300 mg/kg Inhalation-Rat LC50 • 5000 ppm 4 Hour(s) Skin-Rabbit LD50 • >1700 mg/kg	**EU DSD/DPD:** Annex VI, Table 3.2: R10 Xn R20/21 Xi R38 **EU CLP:** Annex VI, Table 3.1: Flam. Liq. 3, H226; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315 **OSHA HCS 2012:** Flam. Liq. 3; Acute Tox. 4 (inhl); Skin Irrit. 2; Eye Irrit. 2; Repr. 1B (inhl); STOT SE 3: Resp. Irrit. & Narc.	NDA
Ethylbenzene	**CAS:**100-41-4 **EC Number:**202-849-4 **EU Index:**601-023-00-4	<= 1%	Skin-Rabbit LD50 • 17800 µL/kg Ingestion/Oral-Rat LD50 • 3500 mg/kg Inhalation-Rabbit LC50 • 4000 ppm 4 Hour(s)	**EU DSD/DPD:** Annex VI, Table 3.2: F R11 Xn R20 **EU CLP:** Annex VI, Table 3.1: Flam. Liq. 2, H225; Acute Tox. 4, H332 **OSHA HCS 2012:** Flam. Liq. 2; Eye Irrit. 2, Repr. 2.; Carc. 2; STOT SE 3: Resp. Irrit & Narc.	NDA
Zinc oxide	**CAS:**1314-13-2 **EC Number:**215-222-5 **EU Index:**030-013-00-7	<= 0.5%	NDA	**EU DSD/DPD:** Annex VI, Table 3.2: N R50-53 **EU CLP:** Annex VI, Table 3.1: Aquatic Acute 1, H400; Aquatic Chronic 1. H410 **OSHA HCS 2012:** Eye Irrit. 2	NDA

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. Get medical attention.

Skin
- Wash skin with soap and water. If irritation develops and persists, get medical attention.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion
- Rinse mouth. Drink 1 - 2 glasses of water. Do NOT induce vomiting. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media

- Carbon dioxide, sand, extinguishing powder.

Unsuitable Extinguishing Media

- Do not use a direct stream of water.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
  Containers may explode when heated.
  Vapor explosion hazard indoors, outdoors or in sewers.
  Many liquids are lighter than water.
  Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).
  Runoff to sewer may create fire or explosion hazard.
  Vapors may form explosive mixtures with air.
  Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

- No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing will only provide limited protection.
  Wear positive pressure self-contained breathing apparatus (SCBA).
  Move containers from fire area if you can do it without risk.
  LARGE FIRES: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
  LARGE FIRES: Cool containers with flooding quantities of water until well after fire is out.
  Stop leak if safe to do so.
  If leak cannot be stopped, and if there is no risk to the surrounding area, let the fire burn itself out.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate personal protective equipment, avoid direct contact. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing.

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 50 meters (150 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. LARGE SPILL: Consider initial downwind evacuation for at least 300 meters (1000 feet) ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

6.2 Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Stop leak if you can do it without risk.
  Absorb or cover with dry earth, sand or other non-combustible material and transfer to

containers.
Use clean non-sparking tools to collect absorbed material.
A vapor suppressing foam may be used to reduce vapors.
All equipment used when handling the product must be grounded.
LARGE SPILLS: Dike far ahead of liquid spill for later disposal.
LARGE SPILLS: Water spray may reduce vapor; but may not prevent ignition in closed spaces.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

- Keep away from heat, sparks and open flame. Use only with adequate ventilation. Wear appropriate personal protective equipment, avoid direct contact. Do not breathe mist/vapours/spray. Avoid contact with skin, eyes, and clothing. Do not ingest. Take precautionary measures against static charges. Bond and ground all transfer containers and equipment. Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations near container. Wash thoroughly with soap and water after handling and before eating, drinking, or using tobacco.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Keep container tightly closed. Store in a cool/low-temperature, well-ventilated place away from heat and ignition sources.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines						
	Result	**ACGIH**	**Belgium**	**Canada Alberta**	**Canada British Columbia**	**Canada Manitoba**
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable)	10 mg/m3 STEL (respirable fraction)
	TWAs	2 mg/m3 TWA (respirable fraction)	10 mg/m3 TWA (dust); 5 mg/m3 TWA (fume)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable)	2 mg/m3 TWA (respirable fraction)
Ethylbenzene (100-41-4)	STELs	Not established	125 ppm STEL; 551 mg/m3 STEL	125 ppm STEL; 543 mg/m3 STEL	Not established	Not established
	TWAs	20 ppm TWA	100 ppm TWA; 442 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA	20 ppm TWA
Xylene (1330-20-7)	STELs	150 ppm STEL	100 ppm STEL; 442 mg/m3 STEL	150 ppm STEL; 651 mg/m3 STEL	150 ppm STEL	150 ppm STEL
	TWAs	100 ppm TWA	50 ppm TWA; 221 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA	100 ppm TWA
Hexane (110-54-3)	TWAs	50 ppm TWA	20 ppm TWA; 72 mg/m3 TWA	50 ppm TWA; 176 mg/m3 TWA	20 ppm TWA	50 ppm TWA
Toluene	STELs	Not established	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established	Not established

(108-88-3)	TWAs	20 ppm TWA	22 ppm TWA; 77 mg/m3 TWA	50 ppm TWA; 188 mg/m3 TWA	20 ppm TWA	20 ppm TWA

Exposure Limits/Guidelines (Con't.)

	Result	Canada New Brunswick	Canada Northwest Territories	Canada Nova Scotia	Canada Nunavut	Canada Ontario
Zinc oxide (1314-13-2)	STELs	10 mg/m3 STEL (fume)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable fraction)	10 mg/m3 STEL (fume)	10 mg/m3 STEL (respirable)
	TWAs	10 mg/m3 TWA (particulate matter containing no Asbestos and <1% Crystalline silica, dust); 5 mg/m3 TWA (fume)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable fraction)	5 mg/m3 TWA (fume); 5 mg/m3 TWA (dust, respirable mass); 10 mg/m3 TWA (total mass, dust)	2 mg/m3 TWA (respirable)
Ethylbenzene (100-41-4)	STELs	125 ppm STEL; 543 mg/m3 STEL	125 ppm STEL; 542 mg/m3 STEL	Not established	125 ppm STEL; 542 mg/m3 STEL	Not established
	TWAs	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 434 mg/m3 TWA	20 ppm TWA
Xylene (1330-20-7)	STELs	150 ppm STEL; 651 mg/m3 STEL	150 ppm STEL; 652 mg/m3 STEL	150 ppm STEL	150 ppm STEL; 652 mg/m3 STEL	150 ppm STEL
	TWAs	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA	100 ppm TWA; 434 mg/m3 TWA	100 ppm TWA
Hexane (110-54-3)	TWAs	50 ppm TWA; 176 mg/m3 TWA	100 ppm TWA; 352 mg/m3 TWA	50 ppm TWA	100 ppm TWA; 352 mg/m3 TWA	50 ppm TWA
	STELs	Not established	125 ppm STEL; 440 mg/m3 STEL	Not established	125 ppm STEL; 440 mg/m3 STEL	Not established
Toluene (108-88-3)	TWAs	50 ppm TWA; 188 mg/m3 TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	20 ppm TWA
	STELs	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Canada Quebec	Canada Saskatchewan	Canada Yukon	Cyprus	Denmark
Zinc oxide (1314-13-2)	TWAs	10 mg/m3 TWAEV (containing no Asbestos and <1% Crystalline silica, total dust); 5 mg/m3 TWAEV (fume)	2 mg/m3 TWA (dust and fume, respirable fraction)	5 mg/m3 TWA (fume); 30 mppcf TWA (dust); 10 mg/m3 TWA (dust)	Not established	4 mg/m3 TWA (including vapour, as Zn)
	STELs	10 mg/m3 STEV (fume)	Not established	10 mg/m3 STEL (fume); 20 mg/m3 STEL (dust)	Not established	Not established
Ethylbenzene (100-41-4)	TWAs	100 ppm TWAEV; 434 mg/m3 TWAEV	100 ppm TWA	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 442 mg/m3 TWA	50 ppm TWA; 217 mg/m3 TWA
	STELs	125 ppm STEV; 543 mg/m3 STEV	Not established	125 ppm STEL; 545 mg/m3 STEL	200 ppm STEL; 884 mg/m3 STEL	Not established
Xylene (1330-20-7)	TWAs	100 ppm TWAEV; 434 mg/m3 TWAEV	100 ppm TWA	100 ppm TWA; 435 mg/m3 TWA	50 ppm TWA; 221 mg/m3 TWA	25 ppm TWA; 109 mg/m3 TWA
	STELs	150 ppm STEV; 651 mg/m3 STEV	Not established	150 ppm STEL; 650 mg/m3 STEL	100 ppm STEL; 442 mg/m3 STEL	Not established
Hexane	TWAs	50 ppm TWAEV; 176 mg/m3 TWAEV	50 ppm TWA	100 ppm TWA; 360 mg/m3 TWA	20 ppm TWA; 72 mg/m3 TWA	20 ppm TWA; 72 mg/m3 TWA

(110-54-3)	STELs	Not established	Not established	125 ppm STEL; 450 mg/m3 STEL	Not established	Not established
Toluene (108-88-3)	TWAs	50 ppm TWAEV; 188 mg/m3 TWAEV	50 ppm TWA	100 ppm TWA; 375 mg/m3 TWA	50 ppm TWA; 192 mg/m3 TWA	25 ppm TWA; 94 mg/m3 TWA
	STELs	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	100 ppm STEL; 384 mg/m3 STEL	Not established

Exposure Limits/Guidelines (Con't.)

	Result	Europe	Germany DFG	Germany TRGS	NIOSH	OSHA
Zinc oxide (1314-13-2)	TWAs	Not established	Not established	Not established	5 mg/m3 TWA (dust and fume)	5 mg/m3 TWA (fume); 15 mg/m3 TWA (total dust); 5 mg/m3 TWA (respirable fraction)
	Ceilings	Not established	1 mg/m3 Peak (respirable fraction, fume)	Not established	15 mg/m3 Ceiling (dust)	Not established
	STELs	Not established	Not established	Not established	10 mg/m3 STEL (fume)	Not established
	MAKs	Not established	1 mg/m3 TWA MAK (fume, respirable fraction)	Not established	Not established	Not established
Ethylbenzene (100-41-4)	TWAs	Not established	Not established	20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 88 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2)	100 ppm TWA; 435 mg/m3 TWA	100 ppm TWA; 435 mg/m3 TWA
	STELs	Not established	Not established	Not established	125 ppm STEL; 545 mg/m3 STEL	Not established
	Ceilings	Not established	40 ppm Peak; 176 mg/m3 Peak	Not established	Not established	Not established
	MAKs	Not established	20 ppm TWA MAK; 88 mg/m3 TWA MAK	Not established	Not established	Not established
Xylene (1330-20-7)	TWAs	Not established	Not established	100 ppm TWA AGW (all isomers, exposure factor 2); 440 mg/m3 TWA AGW (all isomers, exposure factor 2)	Not established	100 ppm TWA; 435 mg/m3 TWA
	Ceilings	Not established	200 ppm Peak (all isomers); 880 mg/m3 Peak (all isomers)	Not established	Not established	Not established
	MAKs	Not established	100 ppm TWA MAK (all isomers); 440 mg/m3 TWA MAK (all isomers)	Not established	Not established	Not established

Hexane (110-54-3)	TWAs	20 ppm TWA; 72 mg/m3 TWA	Not established	50 ppm TWA AGW (exposure factor 8); 180 mg/m3 TWA AGW (exposure factor 8)	50 ppm TWA; 180 mg/m3 TWA	500 ppm TWA; 1800 mg/m3 TWA
	Ceilings	Not established	400 ppm Peak; 1440 mg/m3 Peak	Not established	Not established	Not established
	MAKs	Not established	50 ppm TWA MAK; 180 mg/m3 TWA MAK	Not established	Not established	Not established
Toluene (108-88-3)	STELs	100 ppm STEL; 384 mg/m3 STEL	Not established	Not established	150 ppm STEL; 560 mg/m3 STEL	Not established
	TWAs	50 ppm TWA; 192 mg/m3 TWA	Not established	50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 190 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4)	100 ppm TWA; 375 mg/m3 TWA	200 ppm TWA
	Ceilings	Not established	200 ppm Peak; 760 mg/m3 Peak	Not established	Not established	300 ppm Ceiling
	MAKs	Not established	50 ppm TWA MAK; 190 mg/m3 TWA MAK	Not established	Not established	Not established

Exposure Control Notations

Cyprus

- Toluene (108-88-3): **Skin:** (Skin-potential for cutaneous absorption)
- Xylene (1330-20-7): **Skin:** (Skin-potential for cutaneous absorption)
- Ethylbenzene (100-41-4): **Skin:** (Skin-potential for cutaneous absorption)

Germany TRGS

- Toluene (108-88-3): **Skin:** (skin notation)
- Xylene (1330-20-7): **Skin:** (skin notation (all isomers))
- Ethylbenzene (100-41-4): **Skin:** (skin notation)

Germany DFG

- Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)
- Hexane (110-54-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)
- Xylene (1330-20-7): **Pregnancy:** (classification not yet possible (all isomers)) | **Skin:** (skin notation (all isomers))
- Ethylbenzene (100-41-4): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

8.2 Exposure controls

Engineering Measures/Controls

- This material is designed to be used outdoors, in roofing applications. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment

Respiratory	• Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.
Eye/Face	• Wear safety goggles.
Skin/Body	• Wear appropriate gloves.
Environmental Exposure Controls	• In case of spills, keep product clear of sewers, waterways or land areas. Dispose of waste product in accordance with national and local laws and regulations.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

STEL = Short Term Exposure Limits are based on 15-minute exposures

TWAEV = Time-Weighted Average Exposure Value

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Tan liquid with a characteristic odor.
Color	Tan	Odor	Characteristic
Odor Threshold	Data lacking		
General Properties			
Boiling Point	69 °C(156.2 °F)	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	= 0.876 Water=1	Density	7.307 lbs/gal
Water Solubility	Immiscible	Viscosity	Data lacking
Explosive Properties	Data lacking	Oxidizing Properties:	Data lacking
Volatility			
Vapor Pressure	120 mmHg (torr) @ 20 °C(68 °F)	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	-26 °C(-14.8 °F)	UEL	7.4 %
LEL	1.2 %	Autoignition	Data lacking
Flammability (solid, gas)	Not relevant.		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Avoid flames, sparks, or other sources of ignition.

10.5 Incompatible materials

- Oxidizing agents.

10.6 Hazardous decomposition products

- Carbon monoxide, carbon dioxide, and hydrocarbons.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Toluene (25% TO 50%)	108-88-3	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m³ 4 Hour(s); Inhalation-Human TCLo • 200 ppm; *Brain and Coverings*:**Recordings from specific areas of CNS**; *Behavioral*:**Antipsychotic**; *Blood*:**Changes in bone marrow not included above**; Inhalation-Human TCLo • 1500 mg/m³ 8 Hour(s); *Sense Organs and Special Senses:Eye*:**Lacrimation**; *Sense Organs and Special Senses:Eye*:**Conjunctive irritation**; *Behavioral*:**Ataxia**; Inhalation-Man TCLo • 50 ppm; *Kidney, Ureter, and Bladder*:**Other changes in urine composition**; Skin-Rabbit LD50 • 14100 µL/kg; **Irritation:** Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; **Multi-dose Toxicity:** Inhalation-Mouse TCLo • 250 ppm 4 Day(s)-Continuous; *Behavioral*:**Convulsions or effect on seizure threshold**; *Behavioral*:**Abuse**; Inhalation-Mouse TCLo • 50 ppm 12 Week(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; Inhalation-Rat TCLo • 10 ppm 6 Hour(s) 13 Week(s)-Intermittent; *Brain and Coverings*:**Other degenerative changes**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**Multiple enzyme effects**; **Mutagen:** Micronucleus test • Ingestion/Oral-Mouse • 200 mg/kg; Sister chromatid exchange • Inhalation-Human • 252 µg/L 19 Year(s); Cytogenetic analysis • Inhalation-Rat • 5400 µg/m³ 16 Week(s)-Intermittent; **Reproductive:** Inhalation-Mouse TCLo • 500 mg/m³ 24 Hour(s)(6-13D preg); *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; Inhalation-Mouse TCLo • 200 ppm 7 Hour(s)(7-16D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Urogenital system**
Hexane (5% TO 20%)	110-54-3	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 25 g/kg; Inhalation-Rat LC50 • 48000 ppm 4 Hour(s); **Irritation:** Eye-Rabbit • 10 mg • Mild irritation; **Reproductive:** Inhalation-Rat TCLo • 5000 ppm (6-19D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; *Reproductive Effects:Specific Developmental Abnormalities*:**Urogenital system**
Xylene (2.5% TO 10%)	1330-20-7	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 4300 mg/kg; *Liver*:**Other changes**; *Kidney, Ureter, and Bladder*:**Other changes**; Inhalation-Rat LC50 • 5000 ppm 4 Hour(s); Inhalation-Man LCLo • 10000 ppm 6 Hour(s); *Behavioral*:**General anesthetic**; *Lungs, Thorax, or Respiration*:**Cyanosis**; *Blood*:**Other changes**; Inhalation-Human TCLo • 200 ppm; *Sense Organs and Special Senses:Olfaction*:**Other changes**; *Sense Organs and Special Senses:Eye*:**Conjunctive irritation**; *Lungs, Thorax, or Respiration*:**Other changes**; Skin-Rabbit LD50 • >1700 mg/kg; **Irritation:** Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Moderate irritation; **Reproductive:** Inhalation-Rat TCLo • 50 mg/m³ 6 Hour(s)(1-21D preg); *Reproductive Effects:Effects on Fertility*:**Post-implantation mortality**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; *Reproductive Effects:Specific Developmental Abnormalities*:**Craniofacial (including nose and tongue)**
Ethylbenzene (<= 1%)	100-41-4	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 3500 mg/kg; Inhalation-Rat LC50 • 55000 mg/m³ 2 Hour(s); Skin-Rabbit LD50 • 17800 µL/kg; **Irritation:** Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 15 mg 24 Hour(s)-Open • Mild irritation; **Multi-dose Toxicity:** Inhalation-Rabbit TCLo • 100 mg/m³ 4 Hour(s) 30 Week(s)-Intermittent; *Blood*:**Changes in serum composition (e.g., TP, bilirubin cholesterol)**; *Blood*:**Other changes**; *Blood*:**Changes in leucocyte (WBC) count**
		Acute Toxicity: Inhalation-Mouse LC50 • 2500 mg/m³;

Zinc oxide (<= 0.5%)	1314-13-2	**Irritation:** Eye-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; **Reproductive:** Ingestion/Oral-Rat TDLo • 6846 mg/kg (1-22D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Homeostasis**; *Reproductive Effects:Effects on Newborn*:**Stillbirth**; *Reproductive Effects:Effects on Newborn*:**Growth statistics (e.g., reduced weight gain)**

GHS Properties	Classification
Acute toxicity	**EU/CLP** • Data lacking **OSHA HCS 2012** • Acute Toxicity - Oral 4 - ATEmix (oral) = 1231.11 mg/kg
Skin corrosion/Irritation	**EU/CLP** • Skin Irritation 2 **OSHA HCS 2012** • Skin Irritation 2
Serious eye damage/Irritation	**EU/CLP** • Data lacking **OSHA HCS 2012** • Eye Irritation 2
Skin sensitization	**EU/CLP** • Data lacking **OSHA HCS 2012** • Data lacking
Respiratory sensitization	**EU/CLP** • Data lacking **OSHA HCS 2012** • Data lacking
Aspiration Hazard	**EU/CLP** • Aspiration 1 **OSHA HCS 2012** • Aspiration 1
Carcinogenicity	**EU/CLP** • Data lacking **OSHA HCS 2012** • Carcinogenicity 2
Germ Cell Mutagenicity	**EU/CLP** • Data lacking **OSHA HCS 2012** • Germ Cell Mutagenicity 1B
Toxicity for Reproduction	**EU/CLP** • Toxic to Reproduction 2 **OSHA HCS 2012** • Toxic to Reproduction 1B
STOT-SE	**EU/CLP** • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects **OSHA HCS 2012** • Specific Target Organ Toxicity Single Exposure 3: Narcotic Effects; Specific Target Organ Toxicity Single Exposure 3: Respiratory Tract Irritation
STOT-RE	**EU/CLP** • Specific Target Organ Toxicity Repeated Exposure 2 **OSHA HCS 2012** • Specific Target Organ Toxicity Repeated Exposure 1; Specific Target Organ Toxicity Repeated Exposure 2

Target Organs
- Nervous System, Central Nervous System (CNS)

Route(s) of entry/exposure
- Inhalation, Skin, Eye, Ingestion

Potential Health Effects

Inhalation

Acute (Immediate)
- May cause respiratory irritation. May affect the central nervous system. Symptoms may include dizziness, drowsiness, lethargy, coma and death.

Chronic (Delayed)
- No data available

Skin

Acute (Immediate)
- Causes skin irritation.

Chronic (Delayed)
- No data available.

Eye

Acute (Immediate)
- Causes serious eye irritation.

Chronic (Delayed)
- No data available.

Ingestion

Acute (Immediate)
- Harmful if swallowed. Material may be aspirated into the lungs during ingestion and/or subsequent vomiting. Aspiration of this material will cause severe lung injury, chemical

pneumonitis, pulmonary edema or death.

Chronic (Delayed)
- No data available.

Other

Chronic (Delayed)
- Chronic exposure to hexane may produce peripheral neuropathy (motor sensory) and CNS abnormalities.

Mutagenic Effects
- Repeated or prolonged exposure to toluene may cause genetic defects.

Carcinogenic Effects
- Ethylbenzene is a confirmed animal carcinogen with unknown relevance to humans.

Carcinogenic Effects		
	CAS	IARC
Ethylbenzene	100-41-4	Group 2B-Possible Carcinogen

Reproductive Effects
- May cause adverse reproductive effects - such as birth defects, miscarriages or infertility based on animal data.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
MOD = Moderate
SEV = Severe
TC = Toxic Concentration
MLD = Mild
TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- This material may be toxic to aquatic organisms and cause long-term adverse effects in the aquatic environment.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1133	Adhesives, flammable	3	II	NDA
TDG	UN1133	ADHESIVES, FLAMMABLE	3	II	Potential Marine Pollutant
IMO/IMDG	UN1133	ADHESIVES, FLAMMABLE	3	II	NDA
ADN	UN1133	ADHESIVES, FLAMMABLE	3	II	NDA
ADR/RID	UN1133	ADHESIVES, FLAMMABLE	3	II	NDA
IATA/ICAO	UN1133	Adhesives, flammable	3	II	NDA

14.6 Special precautions for user
- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications
- Acute, Chronic, Fire

State Right To Know				
Component	**CAS**	**MA**	**NJ**	**PA**
Ethylbenzene	100-41-4	Yes	Yes	Yes
Hexane	110-54-3	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes
Xylene	1330-20-7	Yes	Yes	Yes
Zinc oxide	1314-13-2	Yes	Yes	Yes

Inventory						
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**EU EINECS**	**EU ELNICS**	**TSCA**
Ethylbenzene	100-41-4	Yes	No	Yes	No	Yes
Hexane	110-54-3	Yes	No	Yes	No	Yes
Toluene	108-88-3	Yes	No	Yes	No	Yes
Xylene	1330-20-7	Yes	No	Yes	No	Yes
Zinc oxide	1314-13-2	Yes	No	Yes	No	Yes

Belgium

Labor

Belgium - Substances and Preparations - Carcinogens and Mutagens

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Bulgaria

Environment

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 24 Hour

• Ethylbenzene	100-41-4	0.02 mg/m3 MAHCL
• Toluene	108-88-3	0.25 mg/m3 MAHCL
• Xylene	1330-20-7	0.1 mg/m3 MAHCL
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - 30 Minute

• Ethylbenzene	100-41-4	0.02 mg/m3 MAHCL
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	60.0 mg/m3 MAHCL

Bulgaria - Air Quality - Maximum Admissible Hazardous Contaminant Levels - Annual

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Canada

Labor

Canada - WHMIS - Classifications of Substances

• Ethylbenzene	100-41-4	B2, D2A, D2B
• Toluene	108-88-3	B2, D2A, D2B
• Xylene	1330-20-7	B2, D2A, D2B
• Zinc oxide	1314-13-2	Uncontrolled product according to WHMIS classification criteria
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	B2, D2A, D2B

Canada - WHMIS - Ingredient Disclosure List

• Ethylbenzene	100-41-4	0.1 %
• Toluene	108-88-3	1 %
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	1 %
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	1 %

Environment

Canada - 2004 NPRI (National Pollutant Release Inventory)

• Ethylbenzene	100-41-4	Part 1, Group 1 Substance
• Toluene	108-88-3	Part 1, Group 1 Substance; Part 5 Substance
• Xylene	1330-20-7	Part 1, Group 1 Substance; Part 5 Substance
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Part 1, Group 1 Substance

• Hexane	110-54-3	Part 1, Group 1 Substance; Part 5 Substance

Canada - 2005 NPRI (National Pollutant Release Inventory)

• Ethylbenzene	100-41-4	Part 1, Group 1 Substance
• Toluene	108-88-3	Part 1, Group 1 Substance; Part 5 Substance
• Xylene	1330-20-7	Part 1, Group 1 Substance; Part 5 Substance
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Part 1, Group 1 Substance
• Hexane	110-54-3	Part 1, Group 1 Substance; Part 5 Substance

Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Canada - CEPA - Priority Substances List

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Priority Substance List 1 (substance not considered toxic)
• Xylene	1330-20-7	Priority Substance List 1 (substance not considered toxic)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Canada - DWQ (Drinking Water Quality) - IMACs

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Other

Canada - Accelerated Reduction/Elimination of Toxics (ARET)

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Canada New Brunswick

Environment

Canada - New Brunswick - Ozone Depleting Substances - Schedule A

• Ethylbenzene	100-41-4	Not Listed

• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Canada - New Brunswick - Ozone Depleting Substances - Schedule B

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Denmark

Environment

Denmark - List of Undesirable Substances - Product Groups/Function

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Solvents in a wide range of products including paints, coatings and cooling lubricants (listed under Organic solvents)
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Solvents

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

• Ethylbenzene	100-41-4	F; R11 Xn; R20
• Toluene	108-88-3	F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67
• Xylene	1330-20-7	R10 Xn; R20/21 Xi; R38
• Zinc oxide	1314-13-2	N; R50-53
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	F; R11 Xi; R38 N; R51-53 Repr.Cat.3; R62 Xn; R65-48/20 R67

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	12.5%<=C: Xn; R:20/21
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	5%<=C: Xn; R:48/20

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

• Ethylbenzene	100-41-4	F Xn R:11-20 S:(2)-16-24/25-29
• Toluene	108-88-3	F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62
• Xylene	1330-20-7	Xn R:10-20/21-38 S:(2)-25

• Zinc oxide	1314-13-2	N R:50/53 S:60-61
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	F Xn N R:11-38-48/20-62-65-67-51/53 S:(2)-9-16-29-33-36/37-61-62

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	C
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

• Ethylbenzene	100-41-4	S:(2)-16-24/25-29
• Toluene	108-88-3	S:(2)-36/37-46-62
• Xylene	1330-20-7	S:(2)-25
• Zinc oxide	1314-13-2	S:60-61
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	S:(2)-9-16-29-33-36/37-61-62

Germany

Labor

Germany - Immission Control - Qualifying Quantities for Major Accident Prevention

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - Immission Control - Qualifying Quantities for Safety Reporting

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TRGS 505 - Specific Lead Regulations

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TRGS 511 - Specific Ammonium Nitrate Regulations

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed

• Hexane	110-54-3	Not Listed

Environment

Germany - TA Luft - Types and Classes

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TA Luft - Emission Limits for Carcinogenic Substances

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TA Luft - Emission Limits for Fibers

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Dusts

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TA Luft - Emission Limits for Inorganic Gases

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - TA Luft - Emission Limits for Organic Substances

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 1

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed

• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

• Ethylbenzene	100-41-4	ID Number 99, hazard class 1 - low hazard to waters
• Toluene	108-88-3	ID Number 194, hazard class 2 - hazard to waters
• Xylene	1330-20-7	ID Number 206, hazard class 2 - hazard to waters
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	ID Number 124, hazard class 2 - hazard to waters

Germany - Water Classification (VwVwS) - Annex 3

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	ID Number 2187, hazard class 2 - hazard to waters
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Ethylbenzene	100-41-4	(listed under Ethyl benzene)
• Toluene	108-88-3	
• Xylene	1330-20-7	(isomers and mixtures)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Ethylbenzene	100-41-4	1000 lb final RQ; 454 kg final RQ

• Toluene	108-88-3	1000 lb final RQ; 454 kg final RQ
• Xylene	1330-20-7	100 lb final RQ; 45.4 kg final RQ
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	5000 lb final RQ; 2270 kg final RQ

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Ethylbenzene	100-41-4	0.1 % de minimis concentration
• Toluene	108-88-3	1.0 % de minimis concentration
• Xylene	1330-20-7	1.0 % de minimis concentration
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		1.0 % de minimis concentration (Chemical Category N982)
• Hexane	110-54-3	1.0 % de minimis concentration

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

• Ethylbenzene	100-41-4	Included in waste stream: F039
• Toluene	108-88-3	Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151
• Xylene	1330-20-7	Included in waste stream: F039
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

• Ethylbenzene	100-41-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

• Ethylbenzene	100-41-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

• Ethylbenzene	100-41-4	0.057 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Toluene	108-88-3	0.080 mg/L (wastewater); 10 mg/kg (nonwastewater)
• Xylene	1330-20-7	0.32 mg/L (wastewater); 30 mg/kg (nonwastewater)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

• Ethylbenzene	100-41-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	(total)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	waste number U220
• Xylene	1330-20-7	waste number U239 (Ignitable waste)
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Ethylbenzene	100-41-4	carcinogen, initial date 6/11/04
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	developmental toxicity, initial date 1/1/91
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	7000 µg/day MADL (level represents absorbed dose)
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Ethylbenzene	100-41-4	54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral)
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	female reproductive toxicity, initial date 8/7/09
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

United States - Pennsylvania

Labor

U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List

• Ethylbenzene	100-41-4	
• Toluene	108-88-3	
• Xylene	1330-20-7	
• Zinc oxide	1314-13-2	(fume)
• Zinc oxide as Zinc compounds		
• Hexane	110-54-3	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Ethylbenzene	100-41-4	Not Listed
• Toluene	108-88-3	Not Listed
• Xylene	1330-20-7	Not Listed
• Zinc oxide	1314-13-2	Not Listed
• Zinc oxide as Zinc compounds		Not Listed
• Hexane	110-54-3	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H226 - Flammable liquid and vapour
  H312 - Harmful in contact with skin
  H332 - Harmful if inhaled
  H361f - Suspected of damaging fertility.
  H361d - Suspected of damaging the unborn child.
  H400 - Very toxic to aquatic life

  R10 - Flammable.
  R20 - Harmful by inhalation.
  R20/21 - Harmful by inhalation and in contact with skin.
  R50 - Very toxic to aquatic organisms.
  R62 - Possible risk of impaired fertility.

Revision Date
- 01/March/2018

Preparation Date
- 17/July/2013

Other Information
- Changes to this revision: Updated mailing address.

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Key to abbreviations

NDA = No data available