

1. Product and company identification

Product identifier

Trade name: 636W107 - ProSeal Ring-primer

This safety data sheet pertains to the following products:
636W107=0.125 = Primer ProSeal (DE,EN,NL,FR,IT)

Recommended use and restrictions on use

General use: Primer, Adhesion promotor for orthopedic procedures.
Reserved for industrial and professional use.

Initial supplier identifier

Company name: Otto Bock HealthCare Canada Ltd.

Street/POB-No.: 5470 Harvester Road

Postal Code, city: Burlington, ON L7L 5N5, CA
Canada

WWW: www.ottobock.ca

E-mail: info.canada@ottobock.com

Telephone: (800) 665-3327

Telefax: (800) 463-3659

Department responsible for information:

Mark Agro, Telephone: (800) 665-3327 (9 am - 5 pm)

Additional information:

Corporate headquarters:
Ottobock SE & Co. KGaA
Max-Näder-Straße 15
Duderstadt
Germany

Emergency phone number

COLLECT, Telephone: (613) 996-6666

Transport:

CONSULTANK Lutz Harder GmbH (Contract QUALI003)

Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)

2. Hazards identification

Emergency overview

Appearance: Physical state at 20 °C and 101.3 kPa: liquid

Color: yellow

Odor: like solvent

Classification: Flammable Liquid 2. Skin Irritation 2. Sensitization - skin 1. Reproductive toxicity 2.
Specific Target Organ Toxicity (Single Exposure) 3.
Specific Target Organ Toxicity (Repeated Exposure) 2. Aspiration Toxicity 1.
Aquatic toxicity - acute 1. Aquatic toxicity - chronic 1.

Hazard symbols:



Signal word:

Danger

Hazard statements:

- Highly flammable liquid and vapor.
- May be fatal if swallowed and enters airways.
- Causes skin irritation.
- May cause an allergic skin reaction.
- May cause drowsiness or dizziness.
- Suspected of damaging the unborn child.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life with long lasting effects.

Precautionary statements:

- Do not handle until all safety precautions have been read and understood.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Keep container tightly closed.
- Do not breathe fume/gas/mist/vapors/spray.
- Avoid release to the environment.
- Wear protective gloves/protective clothing/eye protection.
- IF SWALLOWED: Immediately call a POISON CENTER/doctor.
- Get medical advice/attention if you feel unwell.
- Do NOT induce vomiting.
- If skin irritation occurs: Get medical advice/attention.
- Wash contaminated clothing before reuse.
- Dispose of contents/container to hazardous or special waste collection point.

Regulatory status

This material is considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200) and WHMIS in Canada.

Hazards not otherwise classified

- May be harmful in contact with skin. May be harmful if inhaled.
- Potentially explosive mixtures may form if adequate ventilation is not provided.
- Inhaling can lead to irritations of the respiratory tract and mucous membrane.
- Higher doses may lead to a narcotic effect.
- Special danger of slipping by leaking/spilling product.
- While curing will be generated vapors.

see section 11: Toxicological information

3. Composition / Information on ingredients

Chemical characterisation: Contains acrylate polymer 1% - 5% and rubber, chlorinated

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 110-82-7	Cyclohexane	45 - 50 %	Flammable Liquid 2. Skin Irritation 2. Specific Target Organ Toxicity (Single Exposure) 3. Aspiration Toxicity 1. Aquatic toxicity - acute 1 (M-factor = 1). Aquatic toxicity - chronic 1 (M-factor = 1).
CAS 1330-20-7	Xylene (isomeric mixture)	30 - 35 %	Flammable Liquid 3. Acute Toxicity 4 (dermal). Acute Toxicity 4 (inhalative). Skin Irritation 2.
CAS 100-41-4	Ethylbenzene	< 11 %	Flammable Liquid 2. Acute Toxicity 4 (inhalative). Specific Target Organ Toxicity (Repeated Exposure) 2. Aspiration Toxicity 1. Aquatic toxicity - chronic 3.
CAS 64-17-5	Ethanol	5 - 10 %	Flammable Liquid 2.
CAS 141-78-6	Ethyl acetate	< 4 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 67-63-0	Isopropyl alcohol	< 1 %	Flammable Liquid 2. Eye Irritation 2A. Specific Target Organ Toxicity (Single Exposure) 3.
CAS 25068-38-6	Bisphenol A epoxy resin (molecular-weight < 700)	< 0.5 %	Skin Irritation 2. Eye Irritation 2A. Sensitization - skin 1. Aquatic toxicity - chronic 2.
CAS 67-56-1	Methanol	< 0.4 %	Flammable Liquid 2. Acute Toxicity 3 (oral). Acute Toxicity 3 (dermal). Acute Toxicity 3 (inhalative). Specific Target Organ Toxicity (Single Exposure) 1.
CAS 108-88-3	Toluene	< 0.3 %	Flammable Liquid 2. Skin Irritation 2. Eye Irritation 2A. Reproductive toxicity 2. Specific Target Organ Toxicity (Single Exposure) 3. Specific Target Organ Toxicity (Repeated Exposure) 2. Aspiration Toxicity 1. Aquatic toxicity - chronic 3.

4. First aid measures

General information:	First aider: Pay attention to self-protection! If medical advice is needed, have product container or label at hand.
In case of inhalation:	Move victim to fresh air. Seek medical treatment in case of troubles.
Following skin contact:	Take off contaminated clothing. After contact with skin, wash immediately with soap and plenty of water. Consult physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.
After swallowing:	If person is clearly conscious, have them drink two glasses of water to dilute ingested material. Do NOT induce vomiting. Immediately get medical attention. Never give an unconscious person anything through the mouth.

Most important symptoms and effects, both acute and delayed

Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. Inhaling can lead to irritations of the respiratory tract and mucous membrane.

Information to physician

Treat symptomatically.

Symptoms of poisoning may develop several hours following exposure. Victim should be under medical observation for at least 48 hours after exposure.

5. Fire fighting measures

Flash point/flash point range:

-17.2 °C (Setaflash)

Auto-ignition temperature: 260 °C (assessment)

Suitable extinguishing media:

Alcohol resistant foam, extinguishing powder, carbon dioxide.
fire extinguisher class B.

Extinguishing media which must not be used for safety reasons:

Full water jet

Specific hazards arising from the chemical

Highly flammable liquid and vapor. Vapors form potentially explosive mixtures with air, which are heavier than air. Air-Vapor mixture may travel great distances at floor level and lead to backflash when exposed to an ignition source.

In case of fire may be liberated: hydrogen chloride, carbon monoxide and carbon dioxide.

Special protective equipment and precautions for fire-fighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Heating will lead to pressure increase: Danger of bursting and explosion. Use fine water spray to cool endangered containers.

Do not allow water used to extinguish fire to enter drains, ground or waterways.

6. Accidental release measures

Personal precautions:

Avoid exposure. Eliminate all ignition sources if safe to do so. If possible, eliminate leakage. Provide adequate ventilation.

Wear appropriate protective equipment. Keep unprotected people away.

Avoid contact with skin and eyes. Do not breathe vapors.

Environmental precautions:

Do not allow to enter into ground-water, surface water or drains.

If necessary, notify appropriate authorities.

Methods for clean-up:

Vapors may form explosive mixtures with air.

Take up with non-flammable, liquid binding material (e.g. sand/earth/diatomaceous earth/vermiculit) and perform disposal according to instructions. Final cleaning.

Additional information:

Use explosion-proof equipment and non-sparking tools/utensils.

7. Handling and storage

Handling

Advices on safe handling: Obtain special instructions before use.

Provide adequate ventilation, and local exhaust as needed. Do not breathe vapors. Wear appropriate protective equipment.

Avoid contact with skin and eyes. When using do not eat, drink or smoke.

Take off immediately all contaminated clothing and wash it before reuse. When handling large quantities, supply emergency spray.

Precautions against fire and explosion:

Vapors may form explosive mixtures with air.

Keep away from heat. Keep away from sources of ignition - No smoking.

Use only spark proof tools.

Take precautionary measures against static discharges.

Avoid open flames.

Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place.

Store only in original container. Protect from direct sunlight.

Hints on joint storage:

Keep away from combustible materials.

Keep away from acids, strong oxidizing agents.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
110-82-7	Cyclohexane	Canada: OEL 8 hour	344 mg/m ³ ; 100 ppm
		Canada: OEL TWA	100 ppm
		Canada: VEMP	1,030 mg/m ³ ; 300 ppm
		USA: ACGIH: TWA	344 mg/m ³ ; 100 ppm
		USA: IDLH: TWA	1,300 ppm [10% LEL]
		USA: NIOSH: TWA	1,050 mg/m ³ ; 300 ppm
		USA: OSHA: TWA	1,050 mg/m ³ ; 300 ppm
1330-20-7	Xylene (isomeric mixture)	Canada: OEL 15 min	651 mg/m ³ ; 150 ppm
		Canada: OEL 8 hour	434 mg/m ³ ; 100 ppm
		Canada: OEL TWA	20 ppm
		Canada: VECD	651 mg/m ³ ; 150 ppm
		Canada: VEMP	434 mg/m ³ ; 100 ppm
		USA: ACGIH: TWA	20 ppm
		USA: IDLH: TWA	900 ppm
		USA: NIOSH: STEL	655 mg/m ³ ; 150 ppm
		USA: NIOSH: TWA	435 mg/m ³ ; 100 ppm
100-41-4	Ethylbenzene	USA: OSHA: TWA	435 mg/m ³ ; 100 ppm
		Canada: OEL 15 min	543 mg/m ³ ; 125 ppm
		Canada: OEL 8 hour	434 mg/m ³ ; 100 ppm
		Canada: OEL TWA	20 ppm
		Canada: VEMP	20 ppm
		USA: ACGIH: TWA	87 mg/m ³ ; 20 ppm
		USA: IDLH: TWA	800 ppm [10% LEL]
		USA: NIOSH: STEL	545 mg/m ³ ; 125 ppm
		USA: NIOSH: TWA	435 mg/m ³ ; 100 ppm
64-17-5	Ethanol	USA: OSHA: TWA	435 mg/m ³ ; 100 ppm
		Canada: OEL 8 hour	1,880 mg/m ³ ; 1,000 ppm
		Canada: OEL STEL	1,000 ppm
		Canada: VECD	1,000 ppm
		USA: ACGIH: STEL	1,000 ppm
		USA: IDLH: TWA	3,300 ppm [10% LEL]
		USA: NIOSH: TWA	1,900 mg/m ³ ; 1,000 ppm
141-78-6	Ethyl acetate	USA: OSHA: TWA	1,900 mg/m ³ ; 1,000 ppm
		Canada: OEL 8 hour	1,440 mg/m ³ ; 400 ppm
		Canada: OEL TWA	150 ppm
		Canada: VEMP	1,440 mg/m ³ ; 400 ppm
		USA: ACGIH: TWA	1,440 mg/m ³ ; 400 ppm
		USA: IDLH: TWA	2,000 ppm [10% LEL]
		USA: NIOSH: TWA	1,400 mg/m ³ ; 400 ppm
		USA: OSHA: TWA	1,400 mg/m ³ ; 400 ppm

CAS No.	Designation	Type	Limit value
67-63-0	Isopropyl alcohol	Canada: OEL 15 min	984 mg/m ³ ; 400 ppm
		Canada: OEL 8 hour	492 mg/m ³ ; 200 ppm
		Canada: OEL STEL	400 ppm
		Canada: OEL TWA	200 ppm
		Canada: VECD	400 ppm
		Canada: VEMP	200 ppm
		USA: ACGIH: STEL	984 mg/m ³ ; 400 ppm
		USA: ACGIH: TWA	492 mg/m ³ ; 200 ppm
		USA: IDLH: TWA	2,000 ppm [10% LEL]
		USA: NIOSH: STEL	1,225 mg/m ³ ; 500 ppm
		USA: NIOSH: TWA	980 mg/m ³ ; 400 ppm
		USA: OSHA: TWA	980 mg/m ³ ; 400 ppm
67-56-1	Methanol	Canada: OEL 15 min	328 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		Canada: OEL 8 hour	262 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		Canada: OEL STEL	250 ppm (may be absorbed through the skin)
		Canada: OEL TWA	200 ppm (may be absorbed through the skin)
		Canada: VECD	328 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		Canada: VEMP	262 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		USA: ACGIH: STEL	328 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		USA: ACGIH: TWA	262 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		USA: IDLH: TWA	6,000 ppm
		USA: NIOSH: STEL	325 mg/m ³ ; 250 ppm (may be absorbed through the skin)
		USA: NIOSH: TWA	260 mg/m ³ ; 200 ppm (may be absorbed through the skin)
		USA: OSHA: TWA	260 mg/m ³ ; 200 ppm

CAS No.	Designation	Type	Limit value
108-88-3	Toluene	Canada: OEL 8 hour	188 mg/m ³ ; 50 ppm (may be absorbed through the skin)
		Canada: OEL TWA	20 ppm
		Canada: VEMP	20 ppm
		USA: ACGIH: TWA	20 ppm
		USA: IDLH: TWA	500 ppm
		USA: NIOSH: STEL	560 mg/m ³ ; 150 ppm
		USA: NIOSH: TWA	375 mg/m ³ ; 100 ppm
		USA: OSHA: Ceiling	500 ppm
		USA: OSHA: STEL	300 ppm
		USA: OSHA: TWA	200 ppm

Biological limit values:

CAS No.	Designation	Type	Limit value	Parameter	Sampling
110-82-7	Cyclohexane	USA: ACGIH-BEI, urine	50 mg/g creatinine	1,2-Cyclohexanediol	end of shift at end of work week
1330-20-7	Xylene (isomeric mixture)	USA: ACGIH-BEI, urine	0.3 g/g creatinine	Methylhippuric acids in ur	end of exposure or end of shift
100-41-4	Ethylbenzene	USA: ACGIH-BEI, urine	0.15 g/g creatinine	Sum of mandelic acid and phenylglyoxylic acid in urine	end of shift at end of work week
67-63-0	Isopropyl alcohol	USA: ACGIH-BEI, urine	40 mg/L	Acetone in urine	end of shift at end of work week
67-56-1	Methanol	USA: ACGIH-BEI, urine	15 mg/L	Methanol	end of exposure or end of shift
108-88-3	Toluene	USA: ACGIH-BEI, blood	0.02 mg/L	Toluene in blood	Prior to last shift of workweek
		USA: ACGIH-BEI, urine	0.03 mg/L	Toluene in urine	end of exposure or end of shift
		USA: ACGIH-BEI, urine	0.3 mg/g creatinine	o-Cresol in urine	end of exposure or end of shift

Engineering controls

Use local exhaust.

See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Wear suitable protective clothing.

Protective gloves according to OSHA Standard - 29 CFR: 1910.138.

Glove material: Fluororubber (Viton)

breakthrough time > 480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Respiratory protective device: with filter for vapors/gases
The filter class must be suitable for the maximum contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product.

General hygiene considerations:

Obtain special instructions before use.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use only in well-ventilated areas.

Avoid contact with skin and eyes. Do not breathe vapors. When using do not eat, drink or smoke.

Wash hands before breaks and after work. Take off immediately all contaminated clothing and wash it before reuse.

When handling large quantities, supply emergency spray.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Physical state at 20 °C and 101.3 kPa: liquid Color: yellow
Odor:	like solvent
Odor threshold:	No data available
pH:	at 23 °C: 5.5 (ASTM)
Melting point/freezing point:	not applicable
Initial boiling point and boiling range:	73.1 °C (ASTM)
Flash point/flash point range:	-17.2 °C (Setaflash)
Evaporation rate:	approx. 6.4 (calculated)
Flammability:	Highly flammable liquid and vapor.
Explosion limits:	LEL (Lower Explosion Limit): 1.00 Vol-% UEL (Upper Explosive Limit): 11.00 Vol-%
Vapor pressure:	at 20 °C: 110.9 hPa (ASTM)
Vapor density:	1.7 (assessment)
Density:	0.82 g/mL
Water solubility:	approx. 10 %
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	260 °C (assessment)
Thermal decomposition:	No data available
Viscosity, dynamic:	at 20 °C: < 25 mPa*s
Viscosity, kinematic:	30.5 mm ² /s

10. Stability and reactivity

Reactivity: Highly flammable liquid and vapor. Potentially explosive vapor/air mixtures may form.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:

Heating will lead to pressure increase: Danger of bursting and explosion.

Hazardous polymerisation: will not occur.

Conditions to avoid:

Keep away from heat sources, sparks and open flames.

Protect from direct sunlight.

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharges.

Incompatible materials:

Strong oxidizing agents, acids.

Thermal decomposition:

No data available

11. Toxicological information

Toxicological tests

Toxicological effects:

The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

ATEmix calculated: > 5,000 mg/kg

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

May be harmful in contact with skin. ATEmix calculated: 2,000 - 5,000 mg/kg

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

May be harmful if inhaled. ATEmix calculated: 20 - 50 mg/L

Skin corrosion/irritation: Skin Irritation 2 = Causes skin irritation.

Serious eye damage/irritation: Lack of data.

Sensitisation to the respiratory tract: Lack of data.

Skin sensitisation: Sensitization - skin 1 = May cause an allergic skin reaction.

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data.

Reproductive toxicity: Reproductive toxicity 2 = Suspected of damaging the unborn child.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Specific Target Organ Toxicity (Single Exposure) 3 = May cause drowsiness or dizziness.

Specific target organ toxicity (repeated exposure): Specific Target Organ Toxicity (Repeated Exposure) 2 = May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard: Aspiration Toxicity 1 = May be fatal if swallowed and enters airways.

Other information:

2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).
2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).
4 percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalativ).

Information about Cyclohexane:

LD50 Rat, oral: 6,200 mg/kg
LD50 Rat, dermal: > 2,000 mg/kg
LC50 Rat, inhalative: > 32.9 mg/L

Information about Xylene:

LD50 Rat, oral: 3,523 mg/kg
LD50 Rabbit, dermal: > 4,200 mg/kg
LC50 Rat, inhalative: 29 mg/L

Information about Ethylbenzene:

LD50 Rat, oral: 7,769 mg/kg
LD50 Rabbit, dermal: 15,433 mg/kg
LC50 Rat, inhalative: 17.4 mg/L

Information about Ethanol:

LD50 Rat, oral: 17,800 mg/kg
LD50 Rabbit, dermal: > 15,800 mg/kg
LC50 Rat, inhalative: 124.7 mg/L

Information about Ethyl acetate:

LD50 Rat, oral: {dec5,62E3} mg/kg
LD50 Rabbit, dermal: > 18,020 mg/kg
LC50 Rat, inhalative: 70.5 mg/L

Information about Isopropyl alcohol:

LD50 Rat, oral: 4,710 mg/kg
LD50 Rabbit, dermal: 12,870 mg/kg
LC50 Rat, inhalative: 72.6 mg/L

Information about Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700):

LD50 Rat, oral: > 1,000 mg/kg
LD50 Rat, dermal: > 1,000 mg/kg

Information about Methanol:

LD50 Rat, oral: > 1,187 mg/kg
LD50 Rabbit, dermal: 17,100 mg/kg
LC50 Rat, inhalative: 128.2 mg/L/4h

Information about Toluene:

LD50 Rat, oral: 5,550 mg/kg
LD50 Rat, dermal: 12,000 mg/kg
LC50 Rat, inhalative: 30 mg/L/4h

For carcinogenic effects:

Information about Xylene:

IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Information about Ethylbenzene:

IARC Rating: Group 2B
OSHA Carcinogen: not listed
NTP Rating: not listed

Information about Isopropyl alcohol:

IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Information about Toluene:

IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Symptoms

Depression of central nervous system:

Symptoms: headache, nausea, dizziness, fatigue, diminished responsiveness, disorders of coordination, nausea, drowsiness, unconsciousness.

Liver and kidney damage:

Symptoms: loss of appetite, loss of weight, fatigue, abdominal pain, jaundice, elevation of blood urea, increasing creatinine, reduced or no urine production, increased Protein content, blood in urine, lower back pain, pain when urinating.

In case of inhalation: Irritant effect on the respiratory tract.

cough, sneeze, headache, hoarseness, sore throat, Thoracic oppression, Breathing difficulty.

In case of ingestion:

When swallowed and vomited immediately, aspiration into the lungs may occur resulting in chemical pneumonia or suffocation.

The following symptoms may occur:

Gastrointestinal complaints

Cough, shortage of breath, wheezing, pneumonia.

Mucous membrane irritation, nausea, vomiting, pain, nausea, Diarrhea.

After contact with skin: Danger of cutaneous absorption.

itching redness of the skin, dry skin, oedema (swelling).

After eye contact: Mild irritant, causes tears.

Redness, oedema (swelling), impairment of vision, pain.

12. Ecological information

Ecotoxicity

Aquatic toxicity:

Very toxic to aquatic life with long lasting effects.

Information about Cyclohexane:

LC50 Pimephales promelas (fathead minnow): 4.53 mg/L/96h

EC50 Daphnia magna (Big water flea): 0.9 mg/L/48h

EC50 Green algae: 3.4 mg/L/72h

Information about Xylene:

LC50 Oncorhynchus mykiss: 2.6 mg/L/96h

EC50 Daphnia magna (Big water flea): 1.1 mg/L/48h

NOEC Daphnia magna (Big water flea): 0.41 mg/L/21d

EC50 Green algae: 0.8 mg/L/72h

NOEC Green algae: 0.73 mg/L/72h

Information about Ethylbenzene:

LC50 Oncorhynchus mykiss: 4.2 mg/L/96h

EC50 Daphnia magna (Big water flea): 1.81 mg/L/24h

EC50 Green algae: 3.6 mg/L/96h

Information about Ethanol:

LC50 Oncorhynchus mykiss: 42 mg/L/96h

EC50 Daphnia magna (Big water flea): 5,012 mg/L/48h

NOEC Daphnia magna (Big water flea): 9.6 mg/L/11d

EC50 Green algae: 1,000 mg/L/96h

NOEC Green algae: < 500 mg/L/96h

Information about Ethyl acetate:

EC50 Daphnia: 164 mg/L/48h

NOEC Daphnia magna (Big water flea): 2.4 mg/L/21d

EC50 Green algae: 2,500 mg/L/72h

Information about Isopropyl alcohol:

LC50 Pimephales promelas (fathead minnow): 6,120 mg/L/96h

NOEC Daphnia magna (Big water flea): 30 mg/L/21d

EC50 Daphnia: 1,400 mg/L/48h

EC50 algae: > 1,000 mg/L/24h

Information about Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700):

LC50 fish: 1.41 mg/L/96h

NOEC Daphnia magna (Big water flea): 0.3 mg/L/21d

Information about Methanol:

LC50 Pimephales promelas (fathead minnow): 22,300 mg/L/96h

NOEC Daphnia magna (Big water flea): 22,200 mg/L/48h

EC50 algae: 16.9 mg/L/96h

NOEC algae: 9.96 mg/L/96h

Information about toluene:

EC50 fish: 5.5 mg/L/96h

NOEC Cyprinus carpio (Common Carp): 3.2 mg/L/28d

EC50 Daphnia magna (Big water flea): 3.78 mg/L/48h

EC50 Green algae: 12.5 mg/L/72h

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):

95.2 % by weight / 780.6 g/L

General information: Do not allow to enter into ground-water, surface water or drains.

13. Disposal considerations

Product

Recommendation: Special waste. Incinerate according to applicable local, state and federal regulations.

Package

Recommendation: Dispose of waste according to applicable legislation.

14. Transport information

UN number

ADR/RID, IMDG, IATA-DGR:

UN 1993

UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

UN 1993, FLAMMABLE LIQUID, N.O.S. (Cyclohexane, xylene)

Transport hazard class(es)

ADR/RID: Class 3, Code: F1

IMDG: Class 3, Subrisk -

IATA-DGR: Class 3

Packing group

ADR/RID, IMDG, IATA-DGR:

II

Environmental hazards

Marine pollutant: yes

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available



USA: Department of Transportation (DOT)

Identification number: UN1993
 Proper shipping name: UN 1993, FLAMMABLE LIQUIDS, N.O.S.
 (Cyclohexane, xylene)
 Hazard class or Division: 3
 Packing Group: II
 Labels: 3
 Symbols: G
 Special Provisions: IB2, T7, TP1, TP8, TP28
 Packaging – Exceptions: 150
 Packaging – Non-bulk: 202
 Packaging – Bulk: 242
 Quantity limitations – Passenger aircraft / rail: 5 L
 Quantity limitations – Cargo only: 60 L
 Vessel stowage – Location: B



Canada: Transportation of Dangerous Goods (TDG)

UN Number: UN1993
 Shipping name: UN 1993, Flammable liquid, n.o.s. (Cyclohexane, xylene)
 TDG class: 3
 Packing group: II
 Special provisions: 16, 150
 Explosive limit and limited quantity index: 1 L
 Passenger carrying road or rail index: 5 L
 Marine pollutant: P

Sea transport (IMDG)

UN number: UN 1993
 Proper shipping name: UN 1993, FLAMMABLE LIQUID, N.O.S. (Cyclohexane, xylene)
 Class or division, Subsidiary risk: Class 3, Subrisk -
 Packing Group: II
 EmS: F-E, S-E
 Special Provisions: 274
 Limited quantities: 1 L
 Excepted quantities: E2
 Package - Instructions: P001
 Package - Provisions: -
 IBC - Instructions: IBC02
 IBC - Provisions: -
 Tank instructions - IMO: -
 Tank instructions - UN: T7
 Tank instructions - Provisions: TP1, TP8, TP28
 Stowage and handling: Category B.
 Properties and observations: -
 Marine pollutant: yes
 Segregation group: none

Air transport (IATA)

UN/ID number:	UN 1993
Proper shipping name::	UN 1993, FLAMMABLE LIQUID, N.O.S. (Cyclohexane, xylene)
Class or division, Subsidiary risk:	Class 3
Packing Group:	II
Hazard label:	Flamm. liquid
Excepted Quantity Code:	E2
Passenger and Cargo Aircraft: Ltd.Qty.:	Pack.Instr. Y341 - Max. Net Qty/Pkg. 1 L
Passenger and Cargo Aircraft:	Pack.Instr. 353 - Max. Net Qty/Pkg. 5 L
Cargo Aircraft only:	Pack.Instr. 364 - Max. Net Qty/Pkg. 60 L
Special Provisions:	A3
Emergency Response Guide-Code (ERG):	3H

15. Regulatory information

National regulations - Canada

Cyclohexane:	DSL: listed
Xylene (isomeric mixture):	DSL: listed
Ethylbenzene:	DSL: listed
Ethanol:	DSL: listed
Ethyl acetate:	DSL: listed
Isopropyl alcohol:	DSL: listed
Bisphenol A epoxy resin (molecular-weight < 700):	DSL: listed
Methanol:	DSL: listed
Toluene:	DSL: listed

National regulations - U.S. Federal Regulations

Cyclohexane:

TSCA Inventory: listed

Clean Air Act:

CAA SOCM Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 1000 lbs.

Other Environmental Laws:

CERCLA: RQ 1000 lbs.

RCRA Hazardous Wastes: Code U056

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0163

Xylene (isomeric mixture):

TSCA Inventory: listed

Carcinogen Status:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 100 lbs.

Other Environmental Laws:

CERCLA: RQ 100 lbs.

RCRA Hazardous Wastes: Code U239

RCRA Groundwater Monitoring: Methods 8020, 8240 / PQL 5, 5

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

Ethylbenzene:

TSCA Inventory: listed

Carcinogen Status:

IARC Rating: Group 2B

OSHA Carcinogen: not listed

NTP Rating: not listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 1000 lbs.

CWA Priority Pollutants: yes

Other Environmental Laws:

CERCLA: RQ 1000 lbs.

RCRA Groundwater Monitoring: Methods 8020, 8240 / PQL 2, 5

SARA Title III - Section 313, Toxic Release: Conc. 1.0% / Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0264*

Ethanol:

TSCA Inventory: listed

NIOSH Recommendations:

Occupational Health Guideline: 0262

Ethyl acetate:

TSCA Inventory: listed

Other Environmental Laws:

CERCLA: RQ 5000 lbs.

RCRA Hazardous Wastes: Code U112

NIOSH Recommendations:

Occupational Health Guideline: 0260

Isopropyl alcohol:

TSCA Inventory: listed

Carcinogen Status:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

NIOSH Recommendations:

Occupational Health Guideline: 0359

Bisphenol A epoxy resin (molecular-weight < 700):

TSCA Inventory: listed

Methanol:

TSCA Inventory: listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM Chemical: yes

Other Environmental Laws:

CERCLA: RQ 5000 lbs.

RCRA Hazardous Wastes: Code U154

SARA Title III - Section 313, Toxic Release: Conc. 1.0%

/ Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0397

Toluene:

TSCA Inventory: listed

Carcinogen Status:

IARC Rating: Group 3

OSHA Carcinogen: not listed

NTP Rating: not listed

Clean Air Act:

CAA Hazardous Air Pollutants: yes

CAA SOCM Chemical: yes

Clean Water Act:

CWA Hazardous Substances: RQ 1000 lbs.

CWA Priority Pollutants: yes

Other Environmental Laws:

CERCLA: RQ 1000 lbs.

RCRA Hazardous Wastes: Code U220

RCRA Groundwater Monitoring: Methods 8020, 8240 /

PQL 2, 5

SARA Title III - Section 313, Toxic Release: Conc. 1.0%

/ Threshold Standard

NIOSH Recommendations:

Occupational Health Guideline: 0619

National regulations - U.S. State Regulations

Cyclohexane:	<p>California Proposition 65 code: none</p> <p>Delaware Air Quality Management List: DRQ: 1000 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585: AAC: 52,5 - EL: 70 - OEL: 1050 - Title 586: -</p> <p>Maine Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 20000</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9</p> <p>Minnesota Haz. Substance: Codes: AO - Ratings: 7.94 - Status: Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT: 1145 - Sub No.: 0565 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ-Air: 1000 - RQ-Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 300 ppm - 1050 mg</p>
Xylene (isomeric mixture):	<p>Delaware Air Quality Management List: DRQ: 100 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585 -- Title 586 --</p> <p>Maine Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 2000</p> <p>Massachusetts Haz. Substance codes: 2,4 F8 F9</p> <p>Michigan Critical Material: Note: - CMR: 44 - Parameter: 01330-20-7 - Annual Usage Parameter: 100</p> <p>Minnesota Haz. Substance: Codes: ANO - Ratings: 8.77 - Status: Air Pollutant. Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT: 1307 - Sub No.: 2014 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ -- Air: 1000 - RQ -- Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 100 ppm / 435 mg - STEL: 150 ppm / 655 mg</p>

Ethylbenzene:	<p>California Proposition 65: cancer</p> <p>California Proposition 65 code: C</p> <p>Delaware Air Quality Management List: DRQ: 1000</p> <p>RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585 -- AAC: 21.75 -- EL: 29 -- WEL: 435</p> <p>Title 586 -</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 F7 F8 F9</p> <p>Minnesota Haz. Substance: Codes: AO -- Ratings: 8.95 -- Status: Air Pollutant. Title III. TRI. Water Pollutant.</p> <p>New Jersey RTK Hazardous Substance: DOT 1175 - Sub No.: 0851 - TPQ: -</p> <p>New York List of Hazardous Substances: RQ -- Air: 1000 - RQ-Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 100 ppm - 435 mg, STEL: 125 ppm - 545 mg</p>
Ethanol:	<p>California Proposition 65 code: -</p> <p>Idaho Air Pollutant List: Title 585: AAC: 94 - EL: 125 - OEL: 1880 - Title 586: -</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 *T1*</p> <p>Minnesota Haz. Substance: Codes: AO - Ratings: 7.74</p> <p>Pennsylvania Haz. Substance code: -</p> <p>Washington Air Contaminant: TWA: 1000 ppm - 1900 mg</p>
Ethyl acetate:	<p>Delaware Air Quality Management List: DRQ: 5000 - RQ State: Federal Regulations Apply</p> <p>Idaho Air Pollutant List: Title 585: AAC: 70 - EL: 93,3 - OEL: 1400 - Title 586: -</p> <p>Main Hazardous Air Pollutants: Me 2005: HAP - Hap Rpt: 20000</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 F8</p> <p>Minnesota Haz. Substance: Codes: AO - Ratings: 6.83 - Status: Title III.</p> <p>New York List of Hazardous Substances: RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical.</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 400 ppm - 1400 mg</p>
Isopropyl alcohol:	<p>Idaho Air Pollutant List: Title 585: AAC: 49 -- EL: 65.3 -- WEL: 980 -Title 586: -</p> <p>Massachusetts Haz. Substance codes: 2,4,5,6 F9</p> <p>Minnesota Haz. Substance: Codes: ANO -- Ratings: 7.84 -- Status: Title III. TRI.</p> <p>New Jersey RTK Hazardous Substance: DOT: 1219 - Sub No.: 1076 - TPQ: -</p> <p>Pennsylvania Haz. Substance code: E</p> <p>Washington Air Contaminant: TWA: 400 ppm - 980 mg -- STEL: 500 ppm - 1225 mg</p>

Methanol:

California Proposition 65: developmental
Delaware Air Quality Management List:
DRQ: 5000 - RQ State: Federal Regulations Apply
Idaho Air Pollutant List:
Title 585: AAC: 13 - EL: 17,3 - OEL: 260 - Title 586: -
Main Hazardous Air Pollutants:
Me 2005: HAP - Hap Rpt: 2000
Massachusetts Haz. Substance codes: 2,4,5,6 F8 F9
Minnesota Haz. Substance:
Codes: ANO - Ratings: 7,5 - Status: Air Pollutant Title III. TRI.
New Jersey RTK Hazardous Substance:
DOT: 1230 - Sub No.: 1222 - TPQ: -
New York List of Hazardous Substances:
RQ-Air: 5000 - RQ-Land: 1 - Note: No Note Associated with this chemical.
Pennsylvania Haz. Substance code: E
Washington Air Contaminant:
TWA: 200 ppm - 260 mg - STEL: 250 ppm - 325 mg
Skin: Protective measures should be taken to prevent or reduce skin absorption.

Toluene:

California Proposition 65: developmental
California Proposition 65 code: D
Delaware Air Quality Management List:
DRQ: 1000 - RQ State: Federal Regulations Apply
Idaho Air Pollutant List:
Title 585: AAC: 18.75 - EL: 25 - OEL: 375 - Title 586: -
Maine Hazardous Air Pollutants:
Me 2005: HAP - Hap Rpt: 2000
Massachusetts Haz. Substance codes: 2,4,5,6 F7 F8 F9
Michigan Critical Material:
Note: - - CMR: 32 - Parameter: 00108-88-3 - Annual Usage Parameter: 100
Minnesota Haz. Substance:
Codes: ANO - Ratings: 8.64 - Status: Air Pollutant Title III. TRI. Water Pollutant
New Jersey RTK Hazardous Substance:
DOT: 1294 - Sub No.: 1866 - TPQ: -
New York List of Hazardous Substances:
RQ-Air: 1000 - RQ-Land: 1 - Note: No Note Associated with this chemical.
Pennsylvania Haz. Substance code: E
Washington Air Contaminant:
TWA: 100 ppm - 375 mg - STEL: 150 ppm - 560 mg

National regulations - EC member states

Further regulations, limitations and legal requirements:

Toluene:

REGULATION (EC) 273/2004 (Drug precursors): Category 3
REGULATION (EC) 111/2005 (Trade with drug precursors): Category 3

16. Other information

Text for labeling:

Contains 45 - 50 % Cyclohexane, 30 - 35 % Xylene (isomeric mixture), < 11 % Ethylbenzene, 5 - 10 % Ethanol, < 4 % Ethyl acetate, < 1 % Isopropyl alcohol, < 0.5 % Bisphenol A epoxy resin (molecular-weight < 700), < 0.4 % Methanol, < 0.3 % Toluene. Contains Cyclohexane, Ethylbenzene, Reaction product: Bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \leq 700) and Toluene

2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (oral).
2 percent of the mixture consists of ingredient(s) of unknown acute toxicity (dermal).
4 percent of the mixture consists of ingredient(s) of unknown acute toxicity (inhalativ).

Hazard rating systems:



NFPA Hazard Rating:

Health: 2 (Moderate)

Fire: 3 (Serious)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 2 (Moderate) - Chronic effects

Flammability: 3 (Serious)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	*	2
FLAMMABILITY		3
PHYSICAL HAZARD		0
X		

Abbreviations and acronyms:

Acute Toxicity: Acute toxicity
 ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 Aquatic toxicity - acute: Hazardous to the aquatic environment - acute
 Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic
 AS/NZS: Australian Standards/New Zealand Standards
 Aspiration Toxicity: Aspiration toxicity
 ATEMix: Acute Toxicity Estimate of mixture
 CAS: Chemical Abstracts Service
 CFR: Code of Federal Regulations
 CLP: Classification, Labelling and Packaging
 DMEL: Derived minimal effect level
 DNEL: Derived no-effect level
 EC: European Community
 EC50: Effective Concentration 50%
 EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods
 EN: European Standard
 EQ: Excepted quantities
 Eye Irritation: Eye irritation
 Flammable Liquid: Flammable liquid
 IATA: International Air Transport Association
 IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
 IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IMDG Code: International Maritime Dangerous Goods Code
 IMO: International Maritime Organization
 LC50: Median lethal concentration
 LD50: Lethal dose 50%
 LEL: Lower Explosion Limit
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 M-factor: Multiplication factor
 OEL: Occupational Exposure Limit Value
 OSHA: Occupational Safety and Health Administration
 PBT: Persistent, bioaccumulative and toxic
 PNEC: Predicted no-effect concentration
 Reproductive toxicity: Reproductive toxicity
 RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
 Sensitization - skin: Skin sensitisation
 Skin Irritation: Skin irritation
 STOT RE: Specific target organ toxicity - repeated exposure
 STOT SE: Specific target organ toxicity - single exposure
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 UN: United Nations
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit
 WHMIS: Workplace Hazardous Materials Information System

Reason of change: Changes in section 2: Labeling

Date of first version: 20/12/2010

Department issuing data sheet

Contact person: see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.