Safety Data Sheet(SDS)

According to Regulation (EU) No. 2020/878

Version : 3-1

Revision date : 01-06-2026

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product identifier : TOL_TOLUENE

Other means of identification : No data

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

○ Relevant identified uses

1.Raw materials and intermediates, Solvent and extraction agents

○ Uses advised against

Use for recommended use only
Do not use it for weapons manufacturing and related purposes.

1.3. Details of the supplier of the safety data sheet

○ Seller

Company name : Lotte Daesan Petrochem Corporation
Address : 82 Dokgot 1-ro, Daesan-eup, Seosan-si, Chungcheongnam-do
Telephone number : +82-41-689-5114
Fax number : +82-41-689-5985
Email : www.ldpc.co.kr (contact)

1.4. Emergency telephone number

Emergency phone number : (Control Room) +82-41-689-5119
Opening hours : 08:30~17:30 (GMT+9)
Other comments(e.g. language(s) of the phone service) : English

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

- Flammable liquids Category 2
- Skin corrosion/irritation Category 2
- Reproductive toxicity Category 2
- Specific target organ toxicity - single exposure Category 3(Narcotic effects)
- Specific target organ toxicity - repeated exposure Category 2
- Aspiration hazard Category 1

2.2. Label elements

Hazard pictograms

Signal word

- 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
H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.

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, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use only explosion-proof electrical, ventilating, lighting and equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Avoid contact during pregnancy/ while nursing.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

- Response

P301+P310 IF SWALLOWED: Call a POISON CENTER / toxins center / physician.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 IF exposed or concerned: Get medical advice/ attention.
P312 Discomfort call a POISON CENTER / toxins center / physician if you feel unwell.
P314 Get medical advice/attention if you feel unwell.
P321 Specific treatment (see supplemental instructions on the administration of antidotes on this label).
P331 Do NOT induce vomiting.
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

- Storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

P403+P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

- Disposal

P501 Discard the contents/containers in accordance with the laws and laws related to waste.

2.3. Other hazards

- No data available

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name	1) CAS No 2) EC No	Classification	1) Index number 2) SCL 3) M-Factor 4) ATE	Content(wt%)
Toluene	1) 108-88-3 2) 203-625-9	Flam. Liq. 2, Skin Irrit. 2, Repr. 2, STOT SE 3, STOT RE 2, Asp. Tox. 1	1) - 2) - 3) - 4) Acute toxicity(Oral) : 5580mg/kg	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

- 4.1.1. Eye contact
  - Seek immediate medical assistance.
  - In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- 4.1.2. Skin contact
  - For hot product, immediately immerse in or flush the affected area with large amounts of cold water to dissipate heat.
  - For minor skin contact, avoid spreading material on unaffected skin.
  - In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
  - In case of burns, immediately cool affected skin for as long as possible with cold water. Do not remove clothing if adhering to skin.
  - Remove and isolate contaminated clothing and shoes.
  - Seek immediate medical assistance.
  - Wash skin with soap and water.
- 4.1.3. Inhalation
  - Administer oxygen if breathing is difficult.
  - Give artificial respiration if victim is not breathing.
  - Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

- If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.
- Keep victim warm and quiet.
- Seek immediate medical assistance.
- Move to fresh air.

○ 4.1.4. If swallowed

- Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- Seek immediate medical assistance.

4.2. Most important symptoms and effects, both acute and delayed

- No data available

4.3. Indication of any immediate medical attention and special treatment needed

- Effects of contact or inhalation may be delayed.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.
- Exposures require specialized first aid with contact and medical follow-up .

SECTION 5: Firefighting measures

5.1. Extinguishing media

○ Suitable extinguishing media

- For mixtures containing alcohol or polar solvent: Alcohol-resistant foam.
- Direct water.
- CO2.
- Dry chemical.
- Water spray.
- Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
- Regular foam.
- Use dry sand or earth to smother fire.

○ Unsuitable extinguishing media

- Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

- Runoff may create fire or explosion hazard.
- Some may burn but none ignite readily.
- Vapor explosion hazard indoors, outdoors or in sewers.
- Vapors may cause dizziness or asphyxiation without warning.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Can decompose at high temperatures forming toxic gases.
- Can form explosive mixtures at temperatures at or above the flashpoint.
- Containers may explode when heated.
- During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Fire may produce irritating, corrosive and/or toxic gases.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Inhalation or contact with material may irritate or burn skin and eyes.
- May cause toxic effects if inhaled or absorbed through skin.

- May violently polymerize and result in fire and explosion.

5.3. Advice for firefighters

- Move containers from fire area if you can do it without risk.
- Rescuers should put on appropriate protective gear.
- Substance may be transported hot.
- Substance may be transported in a molten form.
- Cautions ; Most of liquids are lighter than water.
- Dike fire-control water for later disposal; do not scatter the material.
- Evacuate area and fight fire from a safe distance.
- Fire involving Tanks: ALWAYS stay away from tanks engulfed in fire.
- Fire involving Tanks: Cool containers with flooding quantities of water until well after fire is out.
- Fire involving Tanks: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles.
- Fire involving Tanks: For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.
- Fire involving Tanks: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.
- Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

○ Protective equipment

- The wearing of suitable protective equipment to prevent any contamination of skin, eyes and personal clothing.

○ Emergency procedures

- Removal of ignition sources, provision of sufficient ventilation.

6.1.2. For emergency responders

- All equipment used when handling the product must be grounded.
- A vapor suppressing foam may be used to reduce vapors.
- Do not touch or walk through spilled material.
- ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Stop leak if you can do it without risk.
- Please note that materials and conditions to be avoided.

6.2. Environmental precautions

- Prevent entry into waterways, sewers, basements or confined areas.
- Runoff may cause pollution.

6.3. Methods and material for containment and cleaning up

6.3.1. For containment

- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

6.3.2. For cleaning up

- Clear spills immediately.
- Don't use a brush or compressed air for cleaning surfaces or clothing.

6.3.3. Other information

- Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.

- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.
- Absorb the liquid and scrub the area with detergent and water.
- Dike and collect water used to fight fire.
- Use clean non-sparking tools to collect absorbed material.
- Large Spill: Dike far ahead of liquid spill for later disposal.

6.4. Reference to other sections

- Section 8 (protective equipment), section 13 (disposal instructions)

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Measure atmospheric oxygen concentration and ventilate the area during the operation since low-closed area can cause oxygen deficiency.
- Please note that materials and conditions to be avoided.
- Use care in handling/storage.
- Use only in a well-ventilated area.
- All equipment used when handling the product must be grounded.
- Avoid breathing vapors from heated material.
- Avoid prolonged or repeated contact with skin.
- Caution: Heat.
- Do not enter storage area unless adequately ventilated.
- DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION;.
- Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
- Handling refer to engineering control/personal protection section.
- Loosen closure cautiously before opening.

7.2. Conditions for safe storage, including any incompatibilities

- Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

7.3. Specific end use(s)

- See section 1 for recommended use.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components	Occupational Exposure	ACGIH regulations	Biological limit values	DNEL/DMEL	PNEC-Values

Toluene	50 ppm TWA; 192 mg/m3 TWA 100 ppm STEL; 384 mg/m3 STEL	20 ppm TWA	0.02 mg / l medium: blood time: prior to last shift of workweek parameter: Toluene; 0.03 mg / l Medium: Uric Time: End of Shift Parameter: Toluene; 0.3 mg / g Creatinine Medium: Urine Time: End of Shift Parameter: Ocresol with Hydrolysis (Background)	No data available	No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

- Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.
- Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

8.2.2. Individual protection measures, such as personal protective equipment

○ Eye/face protection

- If the work environment or activity involves dusty conditions, mists or aerosols, wear the appropriate goggles.

○ Skin protection

(i) Hand protection

- Wear chemical safety gloves.

(ii) Other

- No data available

○ Respiratory protection

- If you have a direct contact or exposed to the material, wear the appropriate form of respiratory protection certified.

○ Thermal hazards

- Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.

8.2.3. Environmental exposure controls

- Ensure not to cause envirionmental pollution by discharging into rivers or other waterways.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Property name	Values	Source
Physical state	Liquid	HSDB
Colour	Colourless	HSDB
Odour	Aromatic	HSDB
Melting point/freezing point	-94.99	HSDB
Initial boiling point and boiling range(℃)	110.6 ℃	HSDB
Flammability(solid, gas)	Flammable liquid	
Upper/lower flammability or explosive limits	Upper flammability limits : Ca. 7.1 %(V)/Lower flammability limits : Ca. 1.1 %(V)	GESTIS
Flash point(℃)	4 ℃	HSDB
Auto ignition temperature	480 ℃	HSDB
Decomposition temperature	No data available	
pH	No data available	
Kinematic viscosity(㎟/s, 40℃)	0.56 cP (25℃)	HSDB
Solubility	0.526 g/100㎖ (25 ℃), Insolubility	HSDB
Partition coefficient(n-octanol/water)	logPow 2.73	HSDB
Vapour pressure	28.4 ㎜Hg (25℃)	HSDB
Density/Relative density	0.8669 g/㎤	
Relative Vapour density	3.1 (Air = 1.0)	HSDB
Particle characteristics	Not applicable	
Specific gravity	Ca. 0.87 (20℃)	

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Property name	Values	Source
Flammable liquids	Flash point : 4℃, Initial boiling point and boiling range : 110.6℃	

9.2.2. Other safety characteristics

- No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

- Runoff may create fire or explosion hazard.
- Some may burn but none ignite readily.
- Vapor explosion hazard indoors, outdoors or in sewers.

- Vapors may cause dizziness or asphyxiation without warning.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Can decompose at high temperatures forming toxic gases.
- Can form explosive mixtures at temperatures at or above the flashpoint.
- Containers may explode when heated.
- Fire may produce irritating, corrosive and/or toxic gases.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Inhalation or contact with material may irritate or burn skin and eyes.
- May cause toxic effects if inhaled or absorbed through skin.
- May violently polymerize and result in fire and explosion.

10.2. Chemical stability

- Runoff may create fire or explosion hazard.
- Some may burn but none ignite readily.
- Vapor explosion hazard indoors, outdoors or in sewers.
- Vapors may cause dizziness or asphyxiation without warning.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Can decompose at high temperatures forming toxic gases.
- Can form explosive mixtures at temperatures at or above the flashpoint.
- Containers may explode when heated.
- Fire may produce irritating, corrosive and/or toxic gases.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Inhalation or contact with material may irritate or burn skin and eyes.
- May cause toxic effects if inhaled or absorbed through skin.
- May violently polymerize and result in fire and explosion.

10.3. Possibility of hazardous reactions

- Runoff may create fire or explosion hazard.
- Some may burn but none ignite readily.
- Vapor explosion hazard indoors, outdoors or in sewers.
- Vapors may cause dizziness or asphyxiation without warning.
- Vapors may form explosive mixtures with air.
- Vapors may travel to source of ignition and flash back.
- When heated, vapors may form explosive mixtures with air: indoors, outdoors and sewers explosion hazards.
- Can decompose at high temperatures forming toxic gases.
- Can form explosive mixtures at temperatures at or above the flashpoint.
- Containers may explode when heated.
- Fire may produce irritating, corrosive and/or toxic gases.
- HIGHLY FLAMMABLE: Will be easily ignited by heat, sparks or flames.
- Inhalation or contact with material may irritate or burn skin and eyes.
- May cause toxic effects if inhaled or absorbed through skin.
- May violently polymerize and result in fire and explosion.

10.4. Conditions to avoid

- Heat.
- Ignition source(heat, spark, flame, etc.).

10.5. Incompatible materials

- Combustibles, reducing material.

10.6. Hazardous decomposition products

- Corrosive/toxic fume.
- During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.
- Irritating, corrosive and/or toxic gas.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

○ Acute toxicity

- Acute toxicity(Oral)
  - LD50 5580 mg/kg Test species: Rat (EU Method B.1)
- Acute toxicity(Dermal)
  - LD50 >5000 mg/kg Experimental species: Rabbit
- Acute toxicity(Inhalation:Gases)
  - No data available
- Acute toxicity(Inhalation:Vapours)
  - LC50 >20 ㎎/ℓ Test species: Rat (OECD TG 403)
- Acute toxicity(Inhalation:Dust/mist)
  - No data available

○ Skin corrosion/irritation

- EU-CLP Classifications (Category 2)

  As a result of skin irritation test using rabbits, erythema and edema irritation were observed in all 7 animals, and moderate irritation was observed EU Method B4.

○ Serious eye damage/eye irritation

- As a result of eye irritation test using rabbits, mild irritation was observed and no other effects were observed.

○ Respiratory sensitization

- No data available

○ Skin sensitization

- As a result of the maximization test using guinea pigs, there was no skin hypersensitivity reaction EU Method B.6, GLP

○ Carcinogenicity

- 3 (IARC)

  A4 (ACGHI)

○ Germ cell mutagenicity

- Result of gene mutation test using mammalian cultured cells in vitro, OECD TG 476, result of reversion mutation test using microorganism EU Method B.13/14, negative regardless of metabolic activation system, negative in vivo chromosomal aberration test result

○ Reproductive toxicity

- EU-CLP Classifications (Category 2)

  As a result of a reproductive toxicity test using rats, NOAEC(P) 600ppm (2261mg/m3) at 2000ppm (7537 mg/m3) due to a decrease in sperm count and epididymis.

○ Specific target organ toxicity single exposure

- EU-CLP Classifications (Category 3(Narcotic effects))

In humans, it acts on the central nervous system, causing fatigue, drowsiness, dizziness, respiratory irritation, excitement, vomiting, central nervous system depression, delirium, and gait abnormalities. Irritating to eyes, nose and throat. Causes anesthesia in laboratory animals. Target organ: central nervous system

○ Specific target organ toxicity repeated exposure

- EU-CLP Classifications (Category 2)

90-day repeated oral toxicity test using rats EU method B.26 results of absolute or relative liver weight increase NOAEL 625 mg/kg bw/day 103 weeks inhalation carcinogenicity test using rats OECD TG453, GLP results NOAEC with local toxicity of nasal epithelium 600 ppm2250mg/m3 90-day repeated inhalation toxicity test using rats EU method B.29, GLP result Clinical symptoms, weight change, organ weight brain, heart, lung, male relative testis weight and hematological changes Leukocyte reduction, plasma chollinesterase acitivity decrease As NOAEC 625 ppm2355 mg/m3

○ Aspiration hazard

- EU-CLP Classifications (Category 1)

Aspiration hazard: Hydrocarbon, kinematic viscosity at 40 ℃ 20.5 mm2 / s or less

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

- Toluene

  Not applicable

11.2.2. Other information

- Toluene

  No other hazards have been identified

SECTION 12: Ecological information

12.1. Toxicity

- Fish

  LC50 5.5 mg/L 96 hr Oncorhynchus kistutch

- Crustaceans

  EC50 3.78 mg/ℓ 48 hr Ceriodaphnia dubia

- Aquatic algae

  EC50 134 mg/ℓ 3 hr Chlorella vulgaris (EC10 and NOEC: 10 mg/L)

12.2. Persistence and degradability

- Degradability

  (Not adsorbed to sediment in water, evaporated or biodegraded (BOD: 80%, 20 days))

- Biodegradation

  80 % 20 day (biodegradability)

12.3. Bioaccumulative potential

- n-octanol water partition coefficient

  2.73 log Kow

- Bioconcentration factor(BCF)

  90

12.4. Mobility in soil

No data available

12.5. Result of PBT and vPvB assessment

Not applicable

12.6. Endocrine disrupting properties

Not applicable

12.7. Other adverse effects

Not applicable

SECTION 13: Disposal considerations

13.1. Waste treatment methods

13.1.1. Product / Packaging disposal

- Empty containers should be taken to an approved waste handling site for recycling or disposal.

○ Waste codes / waste designations according to LoW

- No data available

13.1.2. Waste treatment-relevant information

- Disposal according to local regulations.

13.1.3. Sewage disposal-relevant information

- Disposal according to local regulations and avoid release to the environment.

13.1.4. Other disposal recommendations

- No data available

SECTION 14: Transport information

14.1. UN number or ID number : 1294

14.2. UN proper shipping name : TOLUENE

14.3. Transport hazard class(es) : 3

14.4. Packing group : II

14.5. Environmental hazards : No

14.6. Special precautions for user :

Emergency measures in case of fire : F-E

Emergency measures in the effluent : S-D

14.7. Maritime transport in bulk according to IMO instruments :

Not applicable

- ADR

· Tunnel restriction code : D/E

- IMDG

· Marine pollutant : No

- Air transport(IATA)

· UN No. : 1294

· Proper shipping name : TOLUENE

· Class or division : 3

· Packing group : II

SECTION 15: Regulatory information

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

15.1.1. EU regulations

- EU - REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances

- Toluene : Use restricted. See item 48.; Use restricted. See item 75.

- EU - REACH (1907/2006) - Annex XIV - Substances Subject to Authorization

- Toluene : Not applicable

15.1.2. Other EU regulations

- EU - Persistent Organic Pollutants (POPs) (2019/1021) - Annex III - Substances Subject to Release Reduction Provisions

- Not applicable

- EU - Persistent Organic Pollutants (POPs) (2019/1021) - Annex I - Substances Subject to Prohibitions

- Not applicable

- EU - Persistent Organic Pollutants (POPs) (2019/1021) - Annex IV - Waste Management - Concentration Limits

- Not applicable

- EU - Persistent Organic Pollutants (POPs) (2019/1021) -Annex V-Waste Management-Maximum Concentration Limits

- Not applicable

- EU - Paints, Varnishes, Vehicle Refinishing Products (2004/42/CE) - Annex II A - WB Phase 1 - VOCs

- Not applicable

- EU - Paints, Varnishes, Vehicle Refinishing Products (2004/42/CE) - Annex II A - WB Phase 2 - VOCs

- Not applicable

- EU - Paints, Varnishes, Vehicle Refinishing Products (2004/42/CE) - Annex II B - Vehicles - VOCs

- Not applicable

- EU - Paints, Varnishes, Vehicle Refinishing Products (2004/42/CE) - Annex II A - SB Phase 1 - VOCs

- Not applicable

- EU - Paints, Varnishes, Vehicle Refinishing Products (2004/42/CE) - Annex II A - SB Phase 2 - VOCs

- Not applicable

- EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Substances - Lower-Tier Requirements

- Not applicable

- EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Substances - Higher-Tier Requirements

- Not applicable

- EU - Export and Import Restrictions (649/2012) - Chemicals Subject to Export Notification Procedure

- Not applicable

- EU - Export and Import Restrictions (649/2012) - Chemicals and Articles Subject to Export Ban

- Not applicable

- EU - Export and Import Restrictions (649/2012) - Chemicals Subject to the PIC Procedure under the Rotterdam Convention

- Not applicable

- EU - Export and Import Restrictions (649/2012) - Chemicals Qualifying for PIC Notification

- Not applicable

15.2. Chemical safety assessment

- A Chemical Safety Assessment has been carried out.

SECTION 16: Other information

16.1. Key literature references and sources for data

NCIS, KOSHA, Montreal Protocol, ECHA, OECD SIDS, EU IUCLID, HSDB(PubChem), NITE, NTP, ACGIH, IARC, NIOSH, ChemIDplus, EPA, EPI Suite, INCHEM

16.2. Issuing date : 26-12-2022

16.3. Indication of changes

- Revision number : 3-1
- Revision date : 01-06-2026

16.4. Abbreviations and acronyms

ACGIH : American Conference of Governmental Industrial Hygienists
ADR : Agreement Concerning the International Carriage of Dangerous Goods by Road
ATE : The Acute Toxicity Estimate
ECHA : European Chemicals Agency
EPA : United States Environmental Protection Agency
EPI Suite : The Estimation Programs Interface for Windows
EU IUCLID : International Uniform Chemical Information Database
HSDB : Hazardous Substances Data Bank
IARC : International Agency for Research on Cancer
IATA : International Air Transport Association
IMDG : International Maritime Dangerous Goods Codes
INCHEM : Internationally Peer Reviewed Chemical Safety Information
M-Factor : The Multiplication Factor
NIOSH : National Institute of Occupational Safety and Health
NITE : National Institute of Technology and Evaluation(JAPAN)
NTP : National Toxicology Program
SCL : Specific Concentration Limit
OECD SIDS : Organization for Economic Co-operation and Development Screening Information Dataset

For explanation of abbreviations see section 16.

- This substance/mixture contain(s) only ingredients which have been registered, or are exempt from registration, according to Regulation (EC) No. 1907/2006 (REACH).

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.
EUR/EN