

TEAM[®] Industrial Services
SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture 16T LIQUID
Registration number -
Synonyms None.
Product code 800-0010
Issue date 20-March-2013
Version number 01
Revision date 20-March-2013
Supersedes date 07-December-2011

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

Identified uses Industrial Leak Sealant
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Team Industrial Services, Inc.
Address Postbus 37 4380 AA Vlissingen 3237
The Netherlands
Telephone +31 (0) 118 48 58 00
Fax +31 (0) 118 48 58 86
e-mail Not available.
Contact person Not available.

1.4. Emergency telephone number +1 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Directive 67/548/EEC or 1999/45/EC as amended

Classification F;R11, Repr. Cat. 3;R63, Xn;R65-48/20, Xi;R38, R67

The full text for all R-phrases is displayed in section 16.

Classification according to Regulation (EC) No 1272/2008 as amended

Physical hazards

Flammable liquids Category 2 H225 - Highly flammable liquid and vapour.

Health hazards

Skin corrosion/irritation Category 2 H315 - Causes skin irritation.
Reproductive toxicity (the unborn child) Category 2 H361d - Suspected of damaging the unborn child.
Specific target organ toxicity - single exposure Category 3 respiratory tract irritation
Specific target organ toxicity - single exposure Category 3 narcotic effects H336 - May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure Category 2 (Central nervous system) H373 - May cause damage to organs (Central nervous system) through prolonged or repeated exposure.
Aspiration hazard Category 1 H304 - May be fatal if swallowed and enters airways.


Hazard summary

Physical hazards Highly flammable.

| | |
|------------------------------|---|
| Health hazards | Irritating to skin. Harmful: danger of serious damage to health by prolonged exposure through inhalation. Possible risk of harm to the unborn child. Harmful: may cause lung damage if swallowed. Vapours may cause drowsiness and dizziness. Occupational exposure to the substance or mixture may cause adverse health effects. |
| Environmental hazards | Not classified for hazards to the environment. |
| Specific hazards | Causes skin irritation. May cause eye irritation. Prolonged or repeated contact may dry skin and cause dermatitis. Suspected of damaging the unborn child. Vapours may cause drowsiness and dizziness. |
| Main symptoms | Skin irritation. Irritation of eyes and mucous membranes. Symptoms include itching, burning, redness and tearing. Shortness of breath. |

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

| | |
|--------------------------|--|
| Contains: | Toluene |
| Hazard pictograms |  |
| Signal word | Danger |
| Hazard statements | H225 - Highly flammable liquid and vapour. H315 - Causes skin irritation. H361d - Suspected of damaging the unborn child. H373 - May cause damage to organs (Central nervous system) through prolonged or repeated exposure. H336 - May cause drowsiness or dizziness. H304 - May be fatal if swallowed and enters airways. |

Precautionary statements

| | |
|-------------------|---|
| Prevention | P201 - Obtain special instructions before use. P210 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking. P260 - Do not breathe gas/mist/vapours/spray. |
| Response | P308 + P313 - IF exposed or concerned: Get medical advice/attention. P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. P331 - Do NOT induce vomiting. |
| Storage | P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. |
| Disposal | P501 - Dispose of contents/container in accordance with local/regional/national/international regulations. |

Supplemental label information Not applicable.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

| Chemical name | % | CAS-No. / EC No. | REACH Registration No. | INDEX No. | Notes |
|------------------------|-------------|--|------------------------|--------------|-------|
| Toluene | 50-80 | 108-88-3 203-625-9 | - | 601-021-00-3 | # |
| Classification: | DSD: | F;R11, Repr. Cat. 3;R63, Xn;R65-48/20, Xi;R38, R67 | | | |
| | CLP: | Flam. Liq. 2;H225, Asp. Tox. 1;H304, Skin Irrit. 2;H315, STOT SE 3;H336, Repr. 2;H361d, STOT RE 2;H373 | | | |
| Polymer resin | 25-50 | N/A | - | - | |
| Classification: | DSD: | - | | | |
| | CLP: | - | | | |

DSD: Directive 67/548/EEC.

CLP: Regulation No. 1272/2008.

#: This substance has been assigned Community workplace exposure limit(s).

Composition comments All concentrations are in percent by weight. The full text for all R- and H-phrases is displayed in section 16.

SECTION 4: First aid measures

| | |
|--|---|
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |
| 4.1. Description of first aid measures | |
| Inhalation | Move to fresh air. Get medical attention if any discomfort occurs. |
| Skin contact | Remove contaminated clothing and shoes. Flush thoroughly with water for at least 15 minutes. If irritation occurs, get medical assistance. |
| Eye contact | Flush thoroughly with water for at least 15 minutes. Get medical attention if irritation develops or persists. |
| Ingestion | Rinse mouth thoroughly with water and give large amounts of milk or water to people not unconscious. Only induce vomiting at the instruction of medical personnel. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Get medical attention immediately. |
| 4.2. Most important symptoms and effects, both acute and delayed | Skin irritation. Irritation of eyes and mucous membranes. Symptoms include itching, burning, redness, and tearing of eyes. |
| 4.3. Indication of any immediate medical attention and special treatment needed | Be aware that symptoms of chemical pneumonia (shortness of breath) may occur several hours after exposure. |

SECTION 5: Firefighting measures

| | |
|---|---|
| General fire hazards | The product is highly flammable, and explosive vapour/air mixtures may be formed. |
| 5.1. Extinguishing media | |
| Suitable extinguishing media | Extinguish with foam, carbon dioxide, dry powder or water fog. |
| Unsuitable extinguishing media | No restrictions known. |
| 5.2. Special hazards arising from the substance or mixture | Solvent vapours may form explosive mixtures with air. By heating and fire, corrosive vapours/gases may be formed. |
| 5.3. Advice for firefighters | |
| Special protective equipment for firefighters | Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Selection of respiratory protection for firefighting: follow the general fire precautions indicated in the workplace. |
| Special fire fighting procedures | In the event of fire, cool tanks with water spray. Move containers from fire area if you can do it without risk. |

SECTION 6: Accidental release measures

| | |
|---|--|
| 6.1. Personal precautions, protective equipment and emergency procedures | |
| For non-emergency personnel | Ventilate closed spaces before entering. Avoid inhalation of vapours and contact with skin and eyes. Wear appropriate protective equipment and clothing during clean-up. See Section 8 for personal protective equipment. |
| For emergency responders | Use personal protection recommended in Section 8 of the SDS. |
| 6.2. Environmental precautions | Prevent further leakage or spillage if safe to do so. |
| 6.3. Methods and material for containment and cleaning up | Stop the flow of material, if this is without risk. Prevent entry into waterways, sewers, basements or confined areas. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. After removal flush contaminated area thoroughly with water. Never return spills to original containers for re-use. This material and its container must be disposed of as hazardous waste. |
| 6.4. Reference to other sections | For personal protection, see section 8. For waste disposal, see section 13. |

SECTION 7: Handling and storage

| | |
|--|---|
| 7.1. Precautions for safe handling | Pregnant or breastfeeding women must not handle this product. Avoid inhalation of vapours and contact with skin and eyes. Use only with adequate ventilation. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Observe good industrial hygiene practices. |
| 7.2. Conditions for safe storage, including any incompatibilities | Store in tightly closed original container in a dry, cool and well-ventilated place. |
| 7.3. Specific end use(s) | Industrial Leak Sealant |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | MAK | 190 mg/m ³ |
| | | 50 ppm |
| | STEL | 380 mg/m ³ |
| | | 100 ppm |

Belgium. Exposure Limit Values.

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | 100 ppm |
| | TWA | 77 mg/m ³ |
| | | 20 ppm |

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | |
| | TWA | 192 mg/m ³ |

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | TWA | 375 mg/m ³ |
| | | 100 ppm |

Czech Republic. OELs. Government Decree 361

| Components | Type | Value |
|------------------------|---------|-----------------------|
| Toluene (CAS 108-88-3) | Ceiling | 500 mg/m ³ |
| | | |
| | TWA | 200 mg/m ³ |

Denmark. Exposure Limit Values

| Components | Type | Value |
|------------------------|------|----------------------|
| Toluene (CAS 108-88-3) | TLV | 94 mg/m ³ |
| | | 25 ppm |

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | 100 ppm |
| | TWA | 192 mg/m ³ |
| | | 50 ppm |
| | | |

Finland. Workplace Exposure Limits

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 380 mg/m ³ |
| | | 100 ppm |
| | TWA | 81 mg/m ³ |
| | | 25 ppm |
| | | |

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | VLE | 384 mg/m ³ |
| | | 100 ppm |
| | VME | 192 mg/m ³ |
| | | 50 ppm |

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

| Components | Type | Value |
|------------------------|------|---------------------------------|
| Toluene (CAS 108-88-3) | TWA | 190 mg/m ³ 50 ppm |

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

| Components | Type | Value |
|------------------------|------|---------------------------------|
| Toluene (CAS 108-88-3) | AGW | 190 mg/m ³ 50 ppm |

Greece. OELs (Decree No. 90/1999, as amended)

| Components | Type | Value |
|------------------------|------|----------------------------------|
| Toluene (CAS 108-88-3) | STEL | 560 mg/m ³ 150 ppm |
| | TWA | 375 mg/m ³ 100 ppm |

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 380 mg/m ³ |
| | TWA | 190 mg/m ³ |

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

| Components | Type | Value |
|------------------------|------|---------------------------------|
| Toluene (CAS 108-88-3) | STEL | 188 mg/m ³ 50 ppm |
| | TWA | 94 mg/m ³ 25 ppm |

Ireland. Occupational Exposure Limits

| Components | Type | Value |
|------------------------|------|----------------------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ 100 ppm |
| | TWA | 192 mg/m ³ 50 ppm |

Italy. OELs

| Components | Type | Value |
|------------------------|------|---------------------------------|
| Toluene (CAS 108-88-3) | TWA | 192 mg/m ³ 50 ppm |

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

| Components | Type | Value |
|------------------------|------|---------------------------------|
| Toluene (CAS 108-88-3) | STEL | 150 mg/m ³ 40 ppm |
| | TWA | 50 mg/m ³ 14 ppm |

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements (Hygiene Norm HN 23:2007)

| Components | Type | Value |
|------------------------|------|----------------------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ 100 ppm |
| | TWA | 192 mg/m ³ 50 ppm |

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

| Components | Type | Value |
|------------------------|------|----------------------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ 100 ppm |
| | TWA | 192 mg/m ³ 50 ppm |

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m3 |
| | | 100 ppm |
| | TWA | 192 mg/m3 |
| | | 50 ppm |

Netherlands. OELs (binding)

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m3 |
| | TWA | 150 mg/m3 |

Norway. Administrative Norms for Contaminants in the Workplace

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | TLV | 94 mg/m3 |
| | | 25 ppm |

Poland. MACs. Minister of Labour and Social Policy Regarding Maximum Allowable Concentrations and Intensities in Working Environment

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 200 mg/m3 |
| | TWA | 100 mg/m3 |

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m3 |
| | | 100 ppm |
| | TWA | 192 mg/m3 |
| | | 50 ppm |

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | TWA | 50 ppm |

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m3 |
| | | 100 ppm |
| | TWA | 192 mg/m3 |
| | | 50 ppm |

Slovakia. OELs. Decree of the government of the Slovak Republic concerning protection of health in work with chemical agents

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | TWA | 192 mg/m3 |
| | | 50 ppm |

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | TWA | 192 mg/m3 |
| | | 50 ppm |

Spain. Occupational Exposure Limits

| Components | Type | Value |
|------------------------|-------------|--------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m3 |
| | | 100 ppm |
| | TWA | 192 mg/m3 |
| | | 50 ppm |

Sweden. Occupational Exposure Limit Values

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | 100 ppm |
| | TWA | 192 mg/m ³ |
| | | 50 ppm |

Switzerland. SUVA Grenzwerte am Arbeitsplatz

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 760 mg/m ³ |
| | | 200 ppm |
| | TWA | 190 mg/m ³ |
| | | 50 ppm |

UK. EH40 Workplace Exposure Limits (WELs)

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | 100 ppm |
| | TWA | 191 mg/m ³ |
| | | 50 ppm |

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

| Components | Type | Value |
|------------------------|------|-----------------------|
| Toluene (CAS 108-88-3) | STEL | 384 mg/m ³ |
| | | 100 ppm |
| | TWA | 192 mg/m ³ |
| | | 50 ppm |

Biological limit values**Finland. HTP-arvot, App 2., Biological Limit Values, (BRA/BGV) , Social Affairs and Ministry of Health**

| Components | Value | Determinant | Specimen | Sampling time |
|------------------------|------------|-----------------------|----------|---------------|
| Toluene (CAS 108-88-3) | 500 nmol/l | Toluene concentration | Blood | * |

* - For sampling details, please see the source document.

France. Biological indicators of exposure (IBE) (National Institute for Research and Security (INRS, ND 2065)

| Components | Value | Determinant | Specimen | Sampling time |
|------------------------|-----------|------------------|---------------------|---------------|
| Toluene (CAS 108-88-3) | 2500 mg/g | Acide hippurique | Creatinine in urine | * |
| | 2500 mg/g | Acide hippurique | Creatinine in urine | * |
| | 1 mg/l | Toluène | Venous blood | * |

* - For sampling details, please see the source document.

Germany. TRGS 903, BAT List (Biological Limit Values)

| Components | Value | Determinant | Specimen | Sampling time |
|------------------------|--------|-------------|----------|---------------|
| Toluene (CAS 108-88-3) | 3 mg/l | o-Kresol | Urine | * |
| | 1 mg/l | Toluol | Blood | * |

* - For sampling details, please see the source document.

Hungary. Chemical Safety at Workplace Ordinance Joint Decree No. 25/2000 (Annex 2): Permissible limit values of biological exposure (effect) indices

| Components | Value | Determinant | Specimen | Sampling time |
|------------------------|--------|-------------|---------------------|---------------|
| Toluene (CAS 108-88-3) | 1 mg/g | o-crezol | Creatinine in urine | * |

* - For sampling details, please see the source document.

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

| Components | Value | Specimen | Sampling time |
|------------------------|----------|---------------------|---------------|
| Toluene (CAS 108-88-3) | 600 µg/l | Blood | * |
| | 2 g/g | Creatinine in urine | * |

Switzerland. BAT-Werte (Biological Limit Values in the Workplace as per SUVA)

| Components | Value | Specimen | Sampling time |
|------------|----------|----------|---------------|
| | 0,5 mg/l | Urine | * |

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no-effect level (DNEL)

| Components | Type | Route | Value | Form |
|------------------------|---------|------------|-----------------------|----------------------------|
| Toluene (CAS 108-88-3) | Workers | Dermal | 384 mg/kg/day | Long term Systemic effects |
| | | Inhalation | 384 mg/m ³ | Acute Local effects |
| | | Inhalation | 384 mg/m ³ | Acute Systemic effects |
| | | Inhalation | 192 mg/m ³ | Long term Local effects |
| | | Inhalation | 192 mg/m ³ | Long term Systemic effects |

Predicted no effect concentrations (PNECs)

| Components | Type | Route | Value | Form |
|------------------------|------------------------------|----------------|-------------|------|
| Toluene (CAS 108-88-3) | Aqua (freshwater) | Not applicable | 0,68 mg/l | |
| | Aqua (intermittent releases) | Not applicable | 0,68 mg/l | |
| | Aqua (marine water) | Not applicable | 0,68 mg/l | |
| | Sediment (freshwater) | Not applicable | 16,39 mg/kg | |
| | Sediment (marine water) | Not applicable | 16,39 mg/kg | |
| | Sewage Treatment Plant | Not applicable | 13,61 mg/l | |
| | Soil | Not applicable | 2,89 mg/kg | |

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.

Individual protection measures, such as personal protective equipment

General information Personal protective equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear approved safety goggles.

Skin protection

- Hand protection Wear protective gloves. Polyvinyl alcohol gloves are recommended. Be aware that the liquid may penetrate the gloves. Frequent change is advisable. Suitable gloves can be recommended by the glove supplier.

- Other Wear appropriate chemical resistant clothing to prevent any possibility of skin contact.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

Hygiene measures Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Private clothes and working clothes should be kept separately.

Environmental exposure controls Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state Liquid.

Form Viscous liquid.

Colour White.

Odour Solvent.

Odour threshold 0,5 - 23 ppm (Toluene)

pH Not applicable.

| | |
|---|---|
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | 110 °C (230 °F) (solvent) |
| Flash point | < 10 °C (< 50 °F) |
| Evaporation rate | 1 (Butyl acetate=1) |
| Flammability (solid, gas) | Not applicable. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapour pressure | 6 mm Hg @ 20 °C |
| Vapour density | Not applicable. |
| Relative density | 0,9 |
| Solubility(ies) | Negligible. |
| Partition coefficient (n-octanol/water) | Not available. |
| Decomposition temperature | Not available. |
| Viscosity | Not applicable. |
| Explosive properties | Not available. |
| Oxidizing properties | Not available. |
| 9.2. Other information | No relevant additional information available. |

SECTION 10: Stability and reactivity

| | |
|---|---|
| 10.1. Reactivity | The product is non-reactive under normal conditions of use, storage and transport. |
| 10.2. Chemical stability | Material is stable under normal conditions. |
| 10.3. Possibility of hazardous reactions | Hazardous polymerisation does not occur. |
| 10.4. Conditions to avoid | Flames and sparks. |
| 10.5. Incompatible materials | Strong oxidising agents. |
| 10.6. Hazardous decomposition products | Hydrocarbons. Carbon monoxide. Carbon dioxide. Acrolein. Acids. Ketones. Aldehydes. |

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

| | |
|---------------------|--|
| Ingestion | May cause discomfort if swallowed. |
| Inhalation | Vapours may cause drowsiness and dizziness. |
| Skin contact | Causes skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis. Components of the product may be absorbed into the body through the skin. |
| Eye contact | May cause eye irritation. |

Symptoms Irritation of eyes and mucous membranes. Symptoms include itching, burning, redness and tearing. Skin irritation.

11.1. Information on toxicological effects

Acute toxicity May cause discomfort if swallowed.

| Components | Species | Test results |
|--------------------------------------|--|-----------------------------------|
| Toluene (CAS 108-88-3) | | |
| Acute | | |
| <i>Dermal</i> | | |
| LD50 | Rabbit | 14,1 ml/kg |
| <i>Inhalation</i> | | |
| LC50 | Rat | 49000 mg/m ³ , 4 Hours |
| <i>Oral</i> | | |
| LD50 | Rat | 636 mg/kg |
| Skin corrosion/irritation | Causes skin irritation. Prolonged or repeated contact may dry skin and cause dermatitis. | |
| Serious eye damage/irritation | May cause eye irritation. | |

| | |
|----------------------------------|------------------------|
| Respiratory sensitisation | Not classified. |
| Skin sensitisation | Not a skin sensitiser. |
| Germ cell mutagenicity | Not available. |
| Carcinogenicity | Not classified. |

IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

| | |
|---|--|
| Reproductive toxicity | Suspected of damaging the unborn child. |
| Specific target organ toxicity - single exposure | May cause drowsiness or dizziness. |
| Specific target organ toxicity - repeated exposure | May cause damage to organs through prolonged or repeated exposure: Central nervous system. |
| Aspiration hazard | Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |
| Mixture versus substance information | Not available. |
| Other information | Not available. |

SECTION 12: Ecological information

12.1. Toxicity The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

| Components | Species | Test results |
|------------------------|---|----------------------------|
| Toluene (CAS 108-88-3) | | |
| Aquatic | | |
| Crustacea | EC50 Water flea (<i>Daphnia magna</i>) | 5,46 - 9,83 mg/l, 48 hours |
| Fish | LC50 Coho salmon, silver salmon (<i>Oncorhynchus kisutch</i>) | 5,5 mg/l, 96 hours |

12.2. Persistence and degradability No data available.

12.3. Bioaccumulative potential No data available on bioaccumulation.

Partition coefficient n-octanol/water (log Kow)

Toluene (CAS 108-88-3) 2,73

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil Not available.

Mobility in general The product has poor water-solubility. The product contains volatile organic compounds (VOC) which will evaporate easily from all surfaces.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects Not available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

| | |
|-------------------------------------|--|
| Residual waste | Dispose of in accordance with local regulations. |
| Contaminated packaging | Since emptied containers may retain product residue, follow label warnings even after container is emptied. |
| EU waste code | 08 04 09* |
| Disposal methods/information | Disposal recommendations are based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal. |

SECTION 14: Transport information

ADR

| | |
|---|------------------|
| 14.1. UN number | UN1294 |
| 14.2. UN proper shipping name | TOLUENE SOLUTION |
| 14.3. Transport hazard class(es) | 3 |
| Subsidiary class(es) | - |
| 14.4. Packing group | II |

14.5. Environmental hazards No
Tunnel restriction code D/E
Labels required 3
14.6. Special precautions Not available.
for user

RID

14.1. UN number UN1294
14.2. UN proper shipping TOLUENE SOLUTION
name
14.3. Transport hazard 3
class(es)
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards No
Labels required 3
14.6. Special precautions Not available.
for user

ADN

14.1. UN number UN1294
14.2. UN proper shipping TOLUENE SOLUTION
name
14.3. Transport hazard 3
class(es)
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards No
Labels required 3
14.6. Special precautions Not available.
for user

IATA

14.1. UN number UN1294
14.2. UN proper shipping TOLUENE SOLUTION
name
14.3. Transport hazard 3
class(es)
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards No
Labels required Not available.
ERG Code 3L
14.6. Special precautions Not available.
for user

IMDG

14.1. UN number UN1294
14.2. UN proper shipping TOLUENE SOLUTION
name
14.3. Transport hazard 3
class(es)
Subsidiary class(es) -
14.4. Packing group II
14.5. Environmental hazards
Marine pollutant No
Labels required Not available.
EmS F-E, S-D
14.6. Special precautions Not available.
for user

14.7. Transport in bulk This substance/mixture is not intended to be transported in bulk.
according to Annex II of
MARPOL 73/78 and the IBC
Code

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I

Not listed.

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex II

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 1 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 2 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex I, part 3 as amended

Not listed.

Regulation (EC) No. 689/2008 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(1) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 143/2011 Annex XIV Substances Subject to Authorisation

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Toluene (CAS 108-88-3)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work

Not regulated.

Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breastfeeding

Toluene (CAS 108-88-3)

Other EU regulations

Directive 96/82/EC (Seveso II) on the control of major-accident hazards involving dangerous substances

Not regulated.

Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Toluene (CAS 108-88-3)

Directive 94/33/EC on the protection of young people at work

Toluene (CAS 108-88-3)

Other regulations

The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended and respective national laws implementing EC directives. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006 as amended.

National regulations

Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work. Pregnant women should not work with the product, if there is the least risk of exposure. Follow national regulation for work with chemical agents.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

DNEL: Derived No-Effect Level.
PNEC: Predicted No-Effect Concentration. PBT: Persistent, bioaccumulative and toxic. vPvB: Very Persistent and very Bioaccumulative. DSD: Directive 67/548/EEC.
CLP: Regulation No. 1272/2008.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any statements or R-phrases and H-statements under Sections 2 to 15

R11 Highly flammable.
R38 Irritating to skin.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R63 Possible risk of harm to the unborn child.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.
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.
H361d - Suspected of damaging the unborn child.
H373 - May cause damage to organs through prolonged or repeated exposure.

Training information

Follow training instructions when handling this material.

Disclaimer

The information in the sheet was written based on the best knowledge and experience currently available.