

# SAFETY DATA SHEET

Butyl Liner Repair Sealer

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

### 1.1 Product identifier

**Product name** : Butyl Liner Repair Sealer  
**Product code** : BLRSF/PT, BLRSF/QT, BLRSF5G, BLRSF/55 GAL  
**Product description** : Not available.  
**Product type** : Liquid.  
**Other means of identification** : Not available.

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

Not applicable.

### 1.3 Details of the supplier of the safety data sheet

**Manufacturer** : Tech International, 200 East Coshocton Street, Johnstown, Ohio 43031,  
740-967-9015 CHEMTREC: 1-800-424-9300

**Importáló** : Pangus Gumitermék ZRT.  
2233 Ecser,  
Ady Endre u. 3  
Tel.: +36-29-535-560, FAX: +36-29-535-565  
E: pangus@pangus.hu

**Forgalmazó** : Pangus Gumitermék ZRT.  
2233 Ecser,  
Ady Endre u. 3  
Tel.: +36-29-535-560, FAX: +36-29-535-565  
E: pangus@pangus.hu

### 1.4 Emergency telephone number

#### National advisory body/Poison Center

**Telephone number** : CHEMTREC Hungary (Budapest): +(36)-18088425

#### Supplier

**Information limitations** : Material Safety Data Sheet

**A magyarországi Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ) éjjel-nappal hívható száma: 06/80-201-199. Címe: 1096 Budapest, Nagyvárad tér 2.**

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Product definition** : Mixture

#### Classification according to Directive 1999/45/EC [DPD]

The product is classified as dangerous according to Directive 1999/45/EC and its amendments.

**Classification** : F; R11  
Carc. Cat. 2; R45  
N; R51/53

**Physical/chemical hazards** : Highly flammable.

**Human health hazards** : May cause cancer.

**Environmental hazards** : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Date of issue/Date of revision** : 2/27/2014.

1/15

## SECTION 2: Hazards identification

See Section 16 for the full text of the R phrases or H statements declared above.

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

#### 2.2.1 Label elements

##### Hazard pictograms



##### Signal word

: Danger

##### Hazard statements

: Highly flammable liquid and vapor.  
Harmful if inhaled.  
May cause cancer.  
Toxic to aquatic life with long lasting effects.

#### Precautionary statements

##### General

: Not applicable.

##### Prevention

: Obtain special instructions before use. Wear protective gloves. Wear eye or face protection. Keep away from heat, sparks, open flames and hot surfaces. - No smoking. Avoid release to the environment.

##### Response

: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

##### Storage

: Keep cool.

##### Disposal

: Dispose of contents and container in accordance with all local, regional, national and international regulations.

#### 2.2.2 Label elements

##### Hazard symbol or symbols



##### Indication of danger

: Highly flammable, Dangerous for the environment

##### Risk phrases

: R11- Highly flammable.  
R46- May cause heritable genetic damage.  
R38- Irritating to skin.  
R67- Vapors may cause drowsiness and dizziness.  
R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

##### Safety phrases

: S53- Avoid exposure - obtain special instructions before use.  
S61- Avoid release to the environment. Refer to special instructions/safety data sheet.

##### Hazardous ingredients

: Distillates (petroleum), hydrotreated heavy paraffinic

##### Supplemental label elements

: Contains di(benzothiazol-2-yl) disulphide, thiram (ISO). May produce an allergic reaction.

#### Special packaging requirements

##### Containers to be fitted with child-resistant fastenings

: Not applicable.

##### Tactile warning of danger

: Not applicable.

### 2.3 Other hazards

Butyl Liner Repair Sealer

## SECTION 2: Hazards identification

Other hazards which do not result in classification : None known.

## SECTION 3: Composition/information on ingredients

Substance/mixture : Mixture

Product/ingredient name	Identifiers	%	Classification		Type
			67/548/EEC	Regulation (EC) No. 1272/2008 [CLP]	
Solvent naphtha (petroleum), light aliph.	REACH #: 01-2119471306-40 EC: 265-192-2 CAS: 64742-89-8 Index: 649-267-00-0	>=75, <90	Xn; R65	Flam. Liq. 2, H225 Acute Tox. 4, H332 Asp. Tox. 1, H304	[1]
Distillates (petroleum), hydrotreated heavy paraffinic	EC: 265-157-1 CAS: 64742-54-7 Index: 649-467-00-8	>=1, <5	Carc. Cat. 2; R45	Carc. 1B, H350	[1] [2]
di(benzothiazol-2-yl) disulphide	EC: 204-424-9 CAS: 120-78-5 Index: 613-135-00-0	>=0.25, <1	R43, R31 N; R50/53	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
zinc oxide	EC: 215-222-5 CAS: 1314-13-2 Index: 030-013-00-7	>=0.25, <2.5	N; R50/53	Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
thiram (ISO)	EC: 205-286-2 CAS: 137-26-8 Index: 006-005-00-4	>=0.1, <0.25	Xn; R20/22, R48/22 Xi; R36/38 R43 N; R50/53	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	[1]
			<b>See Section 16 for the full text of the R-phrases declared above.</b>	<b>See Section 16 for the full text of the R-phrases declared above.</b>	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs or vPvBs or have been assigned a workplace exposure limit and hence require reporting in this section.

### Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
- [5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

According to Note P of the European Directive 67/548/CEE, the substance "naphtha (oil)" should not be classified as a "carcinogenic" ingredient, because the benzene content (number EINECS 200-753-7) is lower than 0.1% in weight.

Date of issue/Date of revision : 2/27/2014.

3/15

**SECTION 3: Composition/information on ingredients**

Note L: This component has been tested by Supplier. According to Supplier, the component complies with the criteria of Note L in Annex I of 67/548/EEC, and is exempt from a classification of T; R45. (Contains less than 3% DMSO) See "Section 11: Toxicological Information" for information regarding the classification of substances. The classification for aspiration hazards (R65), does not apply for products placed on the market in aerosol containers. (EU-Directive 67/548 Annex VI 9.4)

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.
- Inhalation** : Get medical attention immediately. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**4.2 Most important symptoms and effects, both acute and delayed****Potential acute health effects**

- Eye contact** : May cause eye irritation.
- Inhalation** : No known significant effects or critical hazards.
- Skin contact** : May cause skin irritation.
- Ingestion** : No known significant effects or critical hazards.

**Over-exposure signs/symptoms**

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

## SECTION 4: First aid measures

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : Highly flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide

### 5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also Section 8 for additional information on hygiene measures.

### 6.2 Environmental precautions

- : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

### 6.3 Methods and materials for containment and cleaning up

## SECTION 6: Accidental release measures

- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.
- Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product.
- 6.4 Reference to other sections** : See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

## SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

### 7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

### 7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

**SECTION 8: Exposure controls/personal protection**

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

**8.1 Control parameters****Occupational exposure limits**

Product/ingredient name	Exposure limit values
Distillates (petroleum), hydrotreated heavy paraffinic	<b>25/2000. (IX. 30.) EüM-SzCsM együttes rendelet (Hungary, 12/2011).</b> CEIL: 5 mg/m <sup>3</sup> Form: mist

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to monitoring standards, such as the following: European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

**Derived effect levels**

No DELs available.

**Predicted effect concentrations**

No PECs available.

**8.2 Exposure controls**

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**SECTION 8: Exposure controls/personal protection**

- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Refer to European Standard EN 1149 for further information on material and design requirements and test methods.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****Appearance**

- Physical state** : Liquid. [Viscous liquid.]
- Color** : Black.
- Odor** : Solvent. [Strong]
- Odor threshold** : Not available.
- pH** : Not applicable.
- Melting point/freezing point** : <-45°C
- Initial boiling point and boiling range** : 93 to 116°C
- Flash point** : Closed cup: -7°C [Tagliabue.]
- Evaporation rate** : 3.5 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Burning time** : Not applicable.
- Burning rate** : Not applicable.
- Upper/lower flammability or explosive limits** : Lower: 1.3%  
Upper: 8%
- Vapor pressure** : 5.3 kPa [room temperature]
- Vapor density** : >1
- Relative density** : 0.79
- Solubility(ies)** : Not available.
- Partition coefficient: n-octanol/ water** : Not available.
- Auto-ignition temperature** : 280°C
- Decomposition temperature** : Not available.
- Viscosity** : Dynamic (room temperature): 7000 mPa·s
- VOC content** : 4.99 lbs/gal (598 g/l)
- Explosive properties** : Not available.
- Oxidizing properties** : Not available.



Butyl Liner Repair Sealer

## SECTION 9: Physical and chemical properties

### 9.2 Other information

No additional information.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**10.2 Chemical stability** : The product is stable.

**10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**10.4 Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

**10.5 Incompatible materials** : Highly reactive or incompatible with the following materials:  
oxidizing materials

**10.6 Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Solvent naphtha (petroleum), light aliph.	LC50 Inhalation Gas.	Rat	3400 ppm	4 hours
di(benzothiazol-2-yl) disulphide	LD50 Dermal	Rat	>4000 mg/kg	-
	LD50 Oral	Rat	>8000 mg/kg	-
	LD50 Dermal	Rabbit	>7940 mg/kg	-
thiram (ISO)	LD50 Oral	Rat	>12 g/kg	-
	LC50 Inhalation Dusts and mists	Rat	500 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	>5000 mg/kg	-
	LD50 Oral	Rat	560 mg/kg	-

**Conclusion/Summary** : Not available.

Route	ATE value

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
zinc oxide	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
thiram (ISO)	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Skin - Mild irritant	Rabbit	-	100 Percent	-

Date of issue/Date of revision : 2/27/2014.

9/15

## SECTION 11: Toxicological information

**Conclusion/Summary** : Not available.

### Sensitization

**Conclusion/Summary** : Not available.

### Mutagenicity

**Conclusion/Summary** : Not available.

### Carcinogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

**Eye contact** : May cause eye irritation.

**Inhalation** : No known significant effects or critical hazards.

**Skin contact** : May cause skin irritation.

**Ingestion** : No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : No specific data.

**Inhalation** : No specific data.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

#### Potential chronic health effects

Not available.

**Conclusion/Summary** : Not available.

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

**Other information** : Not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
zinc oxide	Acute EC50 0.042 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 98 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 1.1 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 0.017 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
thiram (ISO)	Acute EC50 1000 µg/l Fresh water	Algae - Chlorella pyrenoidosa	96 hours
	Acute EC50 0.04 mg/l Marine water	Algae - Nannochloropsis oculata	72 hours
	Acute LC50 0.02 mg/l Marine water	Crustaceans - Artemia franciscana - Nauplii	48 hours
	Acute LC50 0.01 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 0.3 µg/l Fresh water	Fish - Cyprinus carpio - Larvae	96 hours

**Conclusion/Summary** : Not available.

### 12.2 Persistence and degradability

**Conclusion/Summary** : Not available.

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
di(benzothiazol-2-yl) disulphide	4.5	26.3	low
thiram (ISO)	1.73	3.39	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**Mobility** : Not available.

### 12.5 Results of PBT and vPvB assessment

**PBT** : Not applicable.

**vPvB** : Not applicable.

**12.6 Other adverse effects** : No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).





### 13.1 Waste treatment methods

**Product**

## SECTION 13: Disposal considerations

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
- Hazardous waste** : The classification of the product may meet the criteria for a hazardous waste.
- Packaging**
- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Special precautions** : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

## SECTION 14: Transport information

	ADR/RID	ADN	IMDG	IATA
<b>14.1 UN number</b>	1133	1133	1133	1133
<b>14.2 UN proper shipping name</b>	Adhesive.	Adhesive.	Adhesive.	Adhesive.
<b>14.3 Transport hazard class(es)</b>	3 	3 	3 	3 
<b>14.4 Packing group</b>	II	II	II	II
<b>14.5 Environmental hazards</b>	Yes.	Yes.	Yes.	No.
<b>Additional information</b>	<b>Tunnel code</b> (D/E)	-	-	-

**14.6 Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** : Not available.

## SECTION 15: Regulatory information

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

#### EU Regulation (EC) No. 1907/2006 (REACH)

##### Annex XIV - List of substances subject to authorization

##### Substances of very high concern

None of the components are listed.

**Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles** : Restricted to professional users.

##### Other EU regulations

**Europe inventory** : Not determined.

**Black List Chemicals** : Not listed

**Priority List Chemicals** : Not listed

**Integrated pollution prevention and control list (IPPC) - Air** : Not listed

**Integrated pollution prevention and control list (IPPC) - Water** : Not listed

Product/ingredient name	Carcinogenic effects	Mutagenic effects	Developmental effects	Fertility effects
Distillates (petroleum), hydrotreated heavy paraffinic	Carc. Cat. 2; R45	-	-	-

Product/ingredient name	List name	Name on list	Classification	Notes
Distillates (petroleum), hydrotreated heavy paraffinic	Hungary Occupational Exposure Values	OLAJ (ásványi) KÖD	Carc. k	-

**Chemical Weapons Convention List Schedule I Chemicals** : Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Not listed

**15.2 Chemical Safety Assessment** : This product contains substances for which Chemical Safety Assessments are still required.

## SECTION 16: Other information

☑ Indicates information that has changed from previously issued version.

**SECTION 16: Other information**

**Abbreviations and acronyms** : ATE = Acute Toxicity Estimate  
 CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]  
 DNEL = Derived No Effect Level  
 EUH statement = CLP-specific Hazard statement  
 PNEC = Predicted No Effect Concentration  
 RRN = REACH Registration Number

**Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Flam. Liq. 2, H225  
 Acute Tox. 4, H332  
 Carc. 1B, H350  
 Aquatic Chronic 2, H411

**Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]**

Classification	Justification
Flam. Liq. 2, H225 Acute Tox. 4, H332 Carc. 1B, H350 Aquatic Chronic 2, H411	On basis of test data Calculation method Calculation method Calculation method

**Full text of abbreviated H statements** : H225 Highly flammable liquid and vapor.  
 H302 Harmful if swallowed.  
 H304 May be fatal if swallowed and enters airways.  
 H315 Causes skin irritation.  
 H317 May cause an allergic skin reaction.  
 H319 Causes serious eye irritation.  
 H330 Fatal if inhaled.  
 H332 Harmful if inhaled.  
 H350 May cause cancer.  
 H373 May cause damage to organs through prolonged or repeated exposure.  
 H400 Very toxic to aquatic life.  
 H410 Very toxic to aquatic life with long lasting effects.  
 H411 Toxic to aquatic life with long lasting effects.

**Full text of classifications [CLP/GHS]** : Acute Tox. 2, H330 ACUTE TOXICITY: INHALATION - Category 2  
 Acute Tox. 4, H302 ACUTE TOXICITY: ORAL - Category 4  
 Acute Tox. 4, H332 ACUTE TOXICITY: INHALATION - Category 4  
 Aquatic Acute 1, H400 AQUATIC HAZARD (ACUTE) - Category 1  
 Aquatic Chronic 1, H410 AQUATIC HAZARD (LONG-TERM) - Category 1  
 Aquatic Chronic 2, H411 AQUATIC HAZARD (LONG-TERM) - Category 2  
 Asp. Tox. 1, H304 ASPIRATION HAZARD - Category 1  
 Carc. 1B, H350 CARCINOGENICITY - Category 1B  
 Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
 Flam. Liq. 2, H225 FLAMMABLE LIQUIDS - Category 2  
 Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
 Skin Sens. 1, H317 SKIN SENSITIZATION - Category 1  
 STOT RE 2, H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

**Full text of abbreviated R phrases** : R11- Highly flammable.  
 R45- May cause cancer.  
 R20/22- Also harmful by inhalation and if swallowed.  
 R48/22- Also harmful: danger of serious damage to health by prolonged exposure if swallowed.  
 R65- Also harmful: may cause lung damage if swallowed.  
 R36/38- Irritating to eyes and skin.  
 R43- May cause sensitization by skin contact.  
 R31- Contact with acids liberates toxic gas.  
 R50/53- Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## SECTION 16: Other information

R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Full text of classifications [DSD/DPD]** : F - Highly flammable  
Carc. Cat. 2 - Carcinogen category 2  
Xn - Harmful  
Xi - Irritant  
N - Dangerous for the environment

**Date of printing** : 2/27/2014.

**Date of issue/ Date of revision** : 2/27/2014.

**Date of previous issue** : 11/26/2013.

**Version** : 0.03

### Notice to reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.