

Safety Data Sheet

according to Regulation (EC) No 1907/2006

Rösler Tyrefill Duro TDI ISO

Revision date: 23.05.2017

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

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

Polyurethane castable elastomer component B for tyrefilling.

1.3. Details of the supplier of the safety data sheet

Company name:	Rösler Tyre Innovators GmbH & Co. KG	
Street:	Ezzestr. 5	
Place:	D-44379 Dortmund	
Telephone:	+49 (0)231 917078 - 00	Telefax: +49 (0)231 917078 - 12
e-mail:	roesler@roesler-tyres.com	

1.4. Emergency telephone number:

+49 (231) 917078-00

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Acute toxicity: Acute Tox. 3

Respiratory or skin sensitisation: Resp. Sens. 1

Respiratory or skin sensitisation: Skin Sens. 1

Carcinogenicity: Carc. 1A

Reproductive toxicity: Repr. 2

Specific target organ toxicity - repeated exposure: STOT RE 2

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Toxic if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause cancer.

Suspected of damaging the unborn child.

May cause damage to organs through prolonged or repeated exposure.

Very toxic to aquatic life with long lasting effects.

2.2. Label elements**Regulation (EC) No. 1272/2008****Hazard components for labelling**Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator
4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate

Signal word: Danger

Pictograms:

**Hazard statements**

H331 Toxic if inhaled.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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H317	May cause an allergic skin reaction.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P201	Obtain special instructions before use.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P321	Specific treatment (see ... on this label).
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Special labelling of certain mixtures

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

2.3. Other hazards

No information available.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Hazardous components**

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
64741-67-9	Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator			60 - < 65 %
	265-069-3	649-048-00-X	01-2119488737-18	
	Carc. 1A, Repr. 2, Acute Tox. 4, STOT RE 2, Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1; H350 H361d H332 H373 H400 H410 EUH066			
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate			1 - < 5 %
	247-722-4	615-006-00-4	01-2119454791-34	
	Carc. 2, Acute Tox. 2, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H351 H330 H315 H319 H334 H317 H335 H412			

Full text of H and EUH statements: see section 16.

Further Information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.

After inhalation

Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator. Call a physician immediately.

After contact with skin

After contact with skin, wash immediately with polyethylene glycol, followed by plenty of water. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

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After contact with eyes

After eye contact: Rinse immediately carefully and thoroughly with eye-bath or water. Consult an ophthalmologist.

After ingestion

Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Induce vomiting when the affected person is not unconscious. Medical treatment necessary.

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

No information available.

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

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

5.2. Special hazards arising from the substance or mixture

Non-flammable.

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep container tightly closed. Keep locked up. Store in a place accessible by authorized persons only. Provide adequate ventilation as well as local exhaustion at critical locations.

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Advice on storage compatibility

No special measures are necessary.

7.3. Specific end use(s)

Polyurethane castable elastomer component B for tyrefilling.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate			
Worker DNEL, acute		inhalation	systemic	0,14 mg/m ³
Worker DNEL, acute		inhalation	local	0,14 mg/m ³
Worker DNEL, long-term		inhalation	systemic	0,035 mg/m ³
Worker DNEL, long-term		inhalation	local	0,035 mg/m ³

Additional advice on limit values

none

8.2. Exposure controls



Appropriate engineering controls

If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Wear eye protection/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

 Physical state: liquid
 Colour: brown

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Odour: characteristic

Test method

pH-Value: not determined

Changes in the physical state

Melting point: not determined

Initial boiling point and boiling range: 250 °C

Flash point: > 150 °C

Flammability

Solid: not applicable

Gas: not applicable

Explosive properties

The product is not: Explosive.

Lower explosion limits: not determined

Upper explosion limits: not determined

Ignition temperature: > 595 °C COC

Auto-ignition temperature

Solid: not applicable

Gas: not applicable

Decomposition temperature: 341,1 °C

Oxidizing properties

Not oxidising.

Vapour pressure:
(at 20 °C) approx. 5,3e-6 hPaDensity: 1,01 - 1,05 g/cm³Water solubility: The study does not need to be conducted
because the substance is known to be
insoluble in water**Solubility in other solvents**

not determined

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Vapour density: 8,5 (Air = 1)

Evaporation rate: not determined

Solvent content: > 40 %

9.2. Other information

Odour threshold: not determined

SECTION 10: Stability and reactivity**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

Danger of polymerisation.

10.3. Possibility of hazardous reactions

Polymerization with heat evolution may occur in the presence of radical forming substances (e.g. peroxides),

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reducing substances, and/or heavy metal ions.

10.4. Conditions to avoid

none

10.5. Incompatible materials

Keep away from: Radical former, Peroxides, Reducing agent.

10.6. Hazardous decomposition products

Hydrogen cyanide (hydrocyanic acid).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Toxic if inhaled.

ATEmix calculated

ATE (inhalative vapour) 2,86 mg/l; ATE (inhalative aerosol) 1,255 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
64741-67-9	Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator				
	oral	LD50 > 5000 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 2000 mg/kg	Rat	Manufacturer	
	inhalative vapour	ATE 11 mg/l			
	inhalative (4 h) aerosol	LC50 4,1 mg/l	Rat	Manufacturer	
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate				
	oral	LD50 4130 mg/kg	Rat	Manufacturer	
	dermal	LD50 > 9400 mg/kg	Rabbit	Manufacturer	
	inhalative (4 h) vapour	LC50 0,107 mg/l	Rat	Manufacturer	
	inhalative aerosol	ATE 0,05 mg/l			

Irritation and corrosivity

Based on available data, the classification criteria are not met.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate)

May cause an allergic skin reaction. (4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate)

Carcinogenic/mutagenic/toxic effects for reproduction

May cause cancer. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator)

Suspected of damaging the unborn child. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Repeated exposure may cause skin dryness or cracking.

May cause damage to organs through prolonged or repeated exposure. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator)

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Aspiration hazard

Based on available data, the classification criteria are not met.

Additional information on tests

The mixture is classified as hazardous according to regulation (EC) No 1272/2008 [CLP]. Special hazards arising from the substance or mixture!

SECTION 12: Ecological information

12.1. Toxicity

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
64741-67-9	Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator					
	Acute fish toxicity	LC50 79 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	Manufacturer	
	Acute algae toxicity	ErC50 0,75 mg/l	72 h	Selenastrum capricornutum	Manufacturer	
	Acute crustacea toxicity	EC50 2 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate					
	Acute fish toxicity	LC50 133 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	Manufacturer	
	Acute algae toxicity	ErC50 3230 mg/l	96 h	Skeletonema costatum	Manufacturer	
	Acute crustacea toxicity	EC50 12,5 mg/l	48 h	Daphnia magna (Big water flea)	Manufacturer	
	Acute bacteria toxicity	(> 100 mg/l)	3 h	Activated sludge	Manufacturer	

12.2. Persistence and degradability

The product has not been tested.

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate			
	OECD 302 C	0 %	28	Manufacturer
	Not readily biodegradable (according to OECD criteria)			

12.3. Bioaccumulative potential

The product has not been tested.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate	3,43

12.4. Mobility in soil

The product has not been tested.

12.5. Results of PBT and vPvB assessment

The product has not been tested.

12.6. Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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SECTION 13: Disposal considerations**13.1. Waste treatment methods****Advice on disposal**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

This material and its container must be disposed of as hazardous waste. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)****14.1. UN number:**

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator residue distn.)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

E

Inland waterways transport (ADN)**14.1. UN number:**

UN 3082

14.2. UN proper shipping name:

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator residue distn.)

14.3. Transport hazard class(es):

9

14.4. Packing group:

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Marine transport (IMDG)**14.1. UN number:**

UN 3082

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14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator residue distn.)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9



Special Provisions: 274, 335, 969
 Limited quantity: 5 L
 Excepted quantity: E1
 EmS: F-A, S-F

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 3082

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator residue distn.)

14.3. Transport hazard class(es): 9

14.4. Packing group: III

Hazard label: 9



Special Provisions: A97 A158 A197
 Limited quantity Passenger: 30 kg G
 Passenger LQ: Y964
 Excepted quantity: E1
 IATA-packing instructions - Passenger: 964
 IATA-max. quantity - Passenger: 450 L
 IATA-packing instructions - Cargo: 964
 IATA-max. quantity - Cargo: 450 L

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes



Danger releasing substance: Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator residue distn.

14.6. Special precautions for user

No information available.

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

not applicable

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

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Entry 3: 4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate

Entry 28: Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator

Information according to 2012/18/EU H2 ACUTE TOXIC
(SEVESO III):

Additional information: E1

Additional information

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: none

National regulatory information

Employment restrictions: Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water contaminating class (D): 3 - highly water contaminating
Skin resorption/Sensitization: Causes allergic hypersensitivity reactions.**15.2. Chemical safety assessment**For the following substances of this mixture a chemical safety assessment has been carried out:
Heavy Fuel oil, Residues (petroleum), catalytic reformer fractionator
4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 3,9,15.

Abbreviations and acronymsADR: Accord européen sur le transport des marchandises dangereuses par Route
(European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%**Relevant H and EUH statements (number and full text)**

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
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.
H412	Harmful to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. May produce an allergic reaction.

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Further Information

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)