

Safety Data Sheet

Revised: 22.02.2006

 Publication No.
 XRB157E(EN)

01. Identification of the substance / preparation and of the company

Product: DOT 3
Use: Brake Fluid
Company: TRW KFZ Ausrüstung GmbH Rudolf-Diesel-Str. 7 56566 Neuwied
Phone: (+49) 02631-912 0
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Emergency phone: (+44) NHS 0845 46 47

02. Composition / Information on ingredients

Substance	EINECS/ELINCS	CAS	Range [%]	Symbol / R-phr.
Tributylamine	203-058-7	102-82-9	0,1 - < 1	N- T-22-23/24-38-51/53
2-2'-Oxydiethanol	203-872-2	111-46-6	1 - < 25	Xn-22
2-(2-(2-Butoxyethoxy)ethoxy)ethanol	205-592-6	143-22-6	20 - < 40	Xi-41

03. Hazards identification

R 36: Irritating to eyes.

04. First aid measures

General information Change soaked clothing.
Inhalation Ensure supply of fresh air. In the event of symptoms seek for medical treatment.
Skin contact When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
Eye contact In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.
Ingestion Do not induce vomiting. Rinse out mouth and give plenty of water to drink. Supply with medical care.
Advice to doctor If swallowed or in the event of vomiting, risk of product entering the lungs.

05. Fire-fighting measures

Suitable extinguishing media: Foam. Dry powder. Water spray jet. Carbon dioxide.
Extinguishing media that must not be used: Full water jet.
Special exposure hazards arising from the substance or preparation itself or combustion products: Risk of formation of toxic pyrolysis products.
Special protective equipment for firefighters: Use self-contained breathing apparatus.
Additional information: Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

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06. Accidental release measures

Personal precautions:	Keep away sources of ignition. High risk of slipping due to leakage/spillage of product.
Environmental precautions:	Do not discharge into the drains/surface waters/groundwater.
Methods for cleaning up:	Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, silicious earth). Dispose of absorbed material in accordance with the regulations.

07. Handling and storage

Advice on safe handling:	Use only in well-ventilated areas.
Advice on protection against fire and explosion:	Keep away from sources of ignition.
Requirements for storage rooms and vessels:	Prevent penetration into the ground.
Advice on storage compatibility:	Do not store together with oxidizing agents.
Further information on storage conditions:	Keep container tightly closed. Keep container in a well-ventilated place.

08. Exposure controls / personal protection

Additional advice on system design:

Ensure adequate ventilation on workstation.

Ingredients with occupational exposure limits to be monitored: (GB)

Substance	[ppm]*	[mg/m ³]*	General remarks:
2-2'-Oxydiethanol	23	101	70

* LTEL: Long-term exposure limit

Respiratory protection:	Breathing apparatus in the event of high concentrations. Short term: filter apparatus, filter A.
Hand protection:	Butyl rubber, >120 min (EN 374).
Eye protection:	Safety glasses.
Skin protection:	not applicable
General protective measures:	Avoid contact with eyes and skin. Do not inhale gases/vapours/aerosols.
Hygiene measures:	Do not eat, drink, smoke or take drugs at work. Wash hands before breaks and after work. Use barrier skin cream.
Delimitation and monitoring of the environmental exposition:	not determined

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09. Physical and chemical properties

Form:	liquid
Colour:	clear
Odour:	perceptible
pH-value:	7-10,5
pH-value (1 %):	not determinated
Boiling point [°C]:	210
Flash point [°C]:	>80
Flammability [°C]:	not determinated
Lower explosion limit:	not determinated
Upper explosion limit:	not determinated
Combustible properties:	no
Vapour pressure [kPa]:	< 2 mbar (20°C)
Density [g/ml]:	1,05 20°C
Bulk density [kg/m³]:	not applicable
Solubility in water:	partially miscible
Partition coefficient: n-octanol/water:	not determinated
Viscosity:	5 - 10 cSt (20°C)
Relative vapour density determined in air:	not determinated
Evaporation speed:	not determinated
Melting point [°C]:	<-50
Autoignition temperature [°C]:	>300
Decomposition temperature [°C]:	not applicable

10. Stability and reactivity

Hazardous reactions:	Reactions with strong oxidizing agents.
Hazardous decomposition products:	No hazardous decomposition products known.

11. Toxicological information

Acute oral toxicity OECD 401:	Rat, > 5000 mg/kg
Irritant effect on eye OECD 405:	Irritant (rabbit).
Experiences made in practice:	none
General remarks:	The toxicological data are those of the pure product.

12. Ecological information

Fish toxicity:	not determinated
Daphnia toxicity:	
Behaviour in environment compartments:	not determinated
Behaviour in sewage plant:	not applicable
Bacteria toxicity:	not determinated

The information and recommendations in this publication are to the best of our knowledge, information and beliefs accurate at the time of publication. Nothing herein is to be construed as a warranty, express or implied. In all cases, it is the responsibility of users to determine the suitability of any products for their own particular purpose. Recommendations for use, handling, protection, etc., are advisory only.

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Biological degradability:	not determinated
COD:	-
BOD 5:	-
AOX-advice:	No dangerous components.
76/464/EC:	not applicable
General information:	Do not allow to enter soil, waterways or waste water.

13. Disposal considerations

Disposal / Product:	Dispose of as hazardous waste. Disposal in an incineration plant in accordance with the regulations of the local authorities.
Waste no. (recommended):	070601*
Disposal / Contaminated packaging:	Uncontaminated packaging may be taken for recycling. Packaging that cannot be cleaned should be disposed of as for product.

14. Transport information

<u>Classification according to ADR:</u>	no dangerous goods
Declaration:	
Labelling:	
Factor (ADR 1.1.3.6):	
LQ (ADR 3.4.6):	
Hazard-no.:	
Label:	
<u>Classification according to IMDG:</u>	not classified as "Dangerous Goods"
Declaration:	
Labelling:	
Label:	
LQ [l, kg]:	
EmS:	
<u>Classification according to IATA:</u>	not classified as "Dangerous Goods"
Declaration:	
Labelling:	
Label:	

15. Regulatory information

Labelling: The product is classified and labelled in accordance within EC-directives.

Hazard symbols:



R 36: Irritating to eyes.

S 2: Keep out of the reach of children. S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S 46: If swallowed, seek medical advice immediately and show this container or label.

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15.1 Special labelling for certain preparations

not applicable

15.2 Sources of documentation

EEC: 91/155 (2001/58); 67/548 (2004/73), 29. ATP; 1999/45 (2001/60); 91/689 (2001/118); 89/542; 1999/13
 Transport information: ADR (2005); IMDG-Code (32.Amdt.); IATA-DGR (2006)

15.3 National regulations(gb)

EH40/2002 Occupational Exposure Limits Supplement 2003

16 Other informations

(Information on ingredients - position 02)

R 22: Harmful if swallowed.

R 23/24: Toxic by inhalation and in contact with skin.

R 38: Irritating to skin.

R 41: Risk of serious damage to eyes.

R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

16.1 Additional information:

Observe employment restrictions for people:	yes
VOC (1999/13/EG):	not determinated
Customs Tariff:	not determinated

16.2 Information on ingredients

UBA-Registration: not applicable
648/2004/EG, Contains: not applicable

16.3 Modified position

none