

SAFETY DATA SHEET
According to Regulation (EC) No. 1907/2006

PERKACIT TBZTD

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND THE COMPANY/UNDERTAKING

Product label name	Tetrabenzylthiuram disulfide
Supplier	Performance Additives Italy S.p.A. Zona Industriale "A" 86039 Termoli (CB) Italy Tel. +39 0875 58941
Emergency telephone	+49 40 30 299 - 0 (only during office hours, Behn Meyer Europe GmbH, Ballindamm 1, D-20095 Hamburg)
Intended use	Vulcanisation accelerator

2. COMPOSITION/INFORMATION ON INGREDIENTS

This product is to be considered as a substance in conformance to EC directives.
Information on hazardous ingredients

Chemical description Tetrabenzylthiuram disulfide

Composition / information on ingredients

Number	% w/w	CAS-number	Chemical name		
Number	EC-number	Annex-1 number	Symbol(s) (EU classification)	Risk-phrase(s)	
1	99.5	10591-85-2	Tetrabenzylthiuram disulfide		
1	404-310-0	016-073-00-7	none	R53	

Other information Formula: C30H28N2S4.

3. HAZARDS IDENTIFICATION

May cause long-term adverse effects in the aquatic environment.

4. FIRST AID MEASURES

Symptoms and effects	Dust may be irritating to the respiratory tract and cause symptoms of bronchitis. May cause alcohol intolerance.
First aid	
General	Do not drink alcohol after exposure.
Inhalation	Move to fresh air. If symptoms persist, seek medical advice.
Skin	Wash immediately with soap and water.
Eye	Rinse thoroughly with plenty of water. Eyelids should be held away from the eyeball to ensure thorough rinsing. Seek medical advice if irritation develops.
Ingestion	Rinse mouth, give water to drink.
Advice to physician	No specific recommendations.

5. FIRE-FIGHTING MEASURES

Extinguishing media	waterspray, water mist, foam, dry chemical powder.
Unsuitable extinguishing media	waterjet.
Special exposure hazards	none known.
Hazardous decomposition / combustion products	Emits toxic fumes under fire conditions: hydrogen cyanide (HCN), sulphur dioxide (SO ₂), nitrous gases (NO _x).
Protective equipment	Wear self contained breathing apparatus.
Other information	Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	For personal protection see Section 8. Avoid dust generation.
Environmental precautions	Do not flush into public water courses.
Methods for cleaning up	Collect as much as possible in a clean container for (preferable) reuse or disposal.

7. HANDLING AND STORAGE

Handling	The usual precautions for handling chemicals should be observed.
Fire and explosion prevention	Avoid dust accumulation. Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition. Kst: 129 bar.m/s. Maximum corrected explosion pressure: 7.5 bar.

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Storage requirements Store in a dry and cool place.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls Avoid dust generation. Ensure good ventilation and local exhaustion of the working area.

Exposure limits

Name

Tetrabenzylthiuram disulfide WEL (TWA): 4 mg/m³ (respirable dust).
OES-TWA 10.0 mg/m³ inhalable dust
OES-TWA 4.0 mg/m³ respirable dust

Personal protection

Respiratory Avoid breathing dust. In case of dust formation use dust mask.
Hand No specific recommendations.
Eye No specific recommendations.
Skin and body No specific recommendations.

Other information The usual precautions for handling chemicals should be observed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance Dedusted powder; powder
Colour light cream
Odour odourless
Boiling point/range 147-149 °C
Melting point/range 124 °C
Flash point not determined
Flammability not determined
Autoignition temperature 440 °C
Explosive properties dust explosion hazard.
Explosion limits Lower Explosion Limit (LEL): 20 g/m³.
Minimum ignition energy: =< 3 mJ.
Oxidising properties not applicable
Vapour pressure 0.82 - 0.90 kPa (25 °C)
Density 1400 kg/m³ (26 °C)
Bulk density 230-365 kg/m³
330-385 kg/m³ (compacted)
Solubility in water 0.001 - 0.01 g/m³ (20.5 °C)
pH value not determined
Partition coefficient Log Pow = 3.4 - 3.7 (20 °C)
n-octanol/water
Relative vapour density (air=1) not applicable
Viscosity not applicable

10. STABILITY AND REACTIVITY

Stability Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid No specific recommendations.
Materials to avoid oxidising agents.
Hazardous decomposition products No hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Name Tetrabenzylthiuram disulfide
Acute toxicity
Oral LD50 rat: >5000 mg/kg.
Inhalation LC50 rat; 4 hours: >5 mg/l (max. attainable concentration).
Irritation
Skin Practically non-irritating.
Eye Minimally irritating.

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Sensitization	Not sensitizing (guinea pig).
Genotoxicity	Ames test, in vitro cytogenetic test in human lymphocytes: Not mutagenic.
Other toxicological information	subacute (28 days) oral toxicity, rat: No Observed Effect Level >1000 mg/kg/day.

12. ECOLOGICAL INFORMATION

Name	Tetrabenzylthiuram disulfide		
Ecotoxicity			
fish	96h-LC50 (Poecilia reticulata):	> 32 mg/l.	
daphnia	48h-EC50 (Daphnia magna):	> 100 mg/l.	
Fate			
Degradation Biotic	Modified Sturm Test:	Not readily biodegradable.	

13. DISPOSAL CONSIDERATIONS

Product	Avoid discharge into the environment. Small quantities: According to local regulations. Large quantities: Consult Flexsys for special advice.
Contaminated packaging	According to local regulations.
Other information	Waste code number: Please refer to your specific industry in the European Waste Catalogue.

14. TRANSPORT INFORMATION

<i>Land transport</i>			
ADR class	not restricted	ADR/RID packing group	not relevant
RID class	not restricted	Substance Identification No.	not relevant
Hazard Identification No.	not relevant	UN number	none
TREM-Card	not relevant		
Proper Shipping Name	not relevant		
<i>Sea transport (IMDG-code / IMO)</i>			
IMO/IMDG code	not restricted	Class	not restricted
Packing group	not relevant	UN number	none
EMS	not relevant	Subsidiary Risk	not relevant
Marine pollutant	no		
Proper Shipping Name	not relevant		
<i>Air transport (ICAO-TI / IATA-DGR)</i>			
ICAO-TI/IATA-DGR		UN number	none
Class	not restricted	Packing group	not relevant
Proper Shipping Name	not relevant		

15. REGULATORY INFORMATION

Chemical description	Tetrabenzylthiuram disulfide		
Labelling according to EC directives			
EC-number	See section 3		
Classification based on	Annex-1 to directive 67/548/EEC		
Symbol(s) (EU classification)	none		
R(isk) phrase(s) (EU classification)	R 53 May cause long-term adverse effects in the aquatic environment		
S(afety) phrase(s) (EU classification)	S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets		
Other information	To be displayed on the label: "EC label".		
German Water Hazard Class (WGK)	2 (VwVwS Anhang 2 Nr. 1837)		

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16. OTHER INFORMATION

This information only concerns the above mentioned product and does not need to be valid if used with other product(s) or in any process. The information is to our best present knowledge correct and complete and is given in good faith but without warranty. It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

R-pharse information

Chemical name

Tetrabenzylthiuram disulfide

Risk-phrase(s)

R53

May cause long-term adverse effects in the aquatic environment

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