

2. HAZARDS IDENTIFICATION**Most Important Hazards**

Human Effects	Not expected to be acutely toxic. Not expected to be an irritant.
Environmental Effects	None known
Other Effects	None known

Classification**67/548/EEC-1999/45/EC (DSD - DPD)**

Not regulated under the criteria of Directive 67/548/EC.

EC Regulation 1272/2008 (CLP)

Not regulated under the criteria of EC Regulation N° 1272/2008 (CLP).

EU Labelling

EC Regulation 1272/2008 (CLP)

Hazard Statements Not regulated under the criteria of EC Regulation N° 1272/2008 (CLP).**Precautionary Statements** Handle in accordance with good industrial hygiene and safety practice.**3. COMPOSITION/INFORMATION ON INGREDIENTS****Chemical Name** Diester/ether diol of tetrabromophthalic anhydride**Formula** C15H16Br4O7

Component	CAS-No	EC No.	REACH No.	Index No.	Weight %	C&L-DSD	C&L-CLP	Haz.st
Diester/ether diol of tetrabromophthalic anhydride	20566-35-2	243-885-0		-	>98	-	-	-

4. FIRST AID MEASURES**Immediate Medical Assistance Required** No

Skin Contact	After contact with skin, wash immediately with plenty of water.
Eye contact	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
Inhalation	Move to fresh air.
Ingestion	Give 500 ml water to drink. Do not induce vomiting.
Emergency Equipment	Ensure that eyewash stations and safety showers are close to the workstation location.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media	Carbon dioxide, dry chemicals, foam, water spray (mist).
Unsuitable Extinguishing Media	None
Exposure Hazards	Releases hydrogen bromide, bromine and oxides of carbon.
Protective equipment and precautions for firefighters	In the event of fire, wear self contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Ventilate the area
Environmental Precautions	Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams. May require excavation of contaminated soil. Use solid absorbent or earth dike to contain spilled substance.
Methods for Clean-up	Take up small spills with dry chemical absorbent. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent.

7. HANDLING AND STORAGE

Handling	Local exhaust is needed at source of vapours. Mechanical ventilation is recommended.
Storage	No special storage required. Keep away from heat.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION
Control parameters
DNEL/DMEL & PNEC Values

DNEL/DMEL Exposure Route	Units	Exposure Frequency	Industrial Worker	Professional Worker	General Population
Oral	mg/kg	Short-term	NA*	NA*	NA**
Oral	mg/kg bw/d	Long-term, repeated	NA*	NA*	NA**
Dermal	mg/kg	Short-term	1600	1600	NA**
Dermal	mg/kg bw/d	Long-term, repeated	89	89	NA*
Inhalation	mg/m ³	Short-term	NA*	NA*	NA**
Inhalation	mg/m ³	Long-term, repeated	47	47	NA**

NA*: Not applicable as not classified, based on study.

NA**: Not applicable for the identified uses.

PNEC Exposure Route	Units	Environment
Fresh Water	mg/l	0.011
Marine Water	mg/l	ND
Intermittent Water	mg/l	0.009
Air	-	-
Sediment	mg/kg w	ND
Marine Sediment	mg/kg w	ND
Soil	mg/kg dw	ND
Sewage Treatment Plant	mg/l	ND

ND: Not derived

Exposure limits no data available

Exposure controls
Engineering Controls
Technical measures/Precautions Use with local exhaust ventilation.

Organisational measures Organisational measures to avoid touching equipment surfaces covered with the substance. Change contaminated or damaged gloves immediately. Training in proper use of PPE provided and ensured via an inspection policy.

Personal Protective Equipment:
Skin Protection Wear protective gloves/clothing. Hard hat with brim.
Eye Protection Chemical goggles or safety glasses.
Hand protection Wear suitable gloves resistant to chemical penetration.
Respiratory Protection Approved organic vapour respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES
Form Viscous liquid.
Color Amber.
Odor Mild.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point	No data available
Density	1.8(20°C)
Melting/freezing point	No data available
Vapour pressure	No data available
Water Solubility	< 0.1 % (25°C) (0.057 mg/l (estimated))
Flammability (solid, gas)	No data available
Flash point	105°C(TCC)
pH	No data available
Explosive Properties	No data available
Oxidizing Properties	No data available
Partition Coefficient (log Pow)	3.825(calculated)
Viscosity, dynamic	1400-2100cPs(60°C)
Evaporation Rate	No data available
Vapor density	No data available
Specific Gravity	No data available
Other information	No data available

10. STABILITY AND REACTIVITY

Stability	Stable.
Materials to avoid	Incompatible with oxidizing agents.
Conditions to Avoid	Temperatures above 210°C.
Hazardous decomposition products	Hydrobromic acid, bromine and oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Information given is based on data on the components and the toxicology of similar products. Not expected to be acutely toxic.
LD50 Oral:	Rat Oral LD50:>2000 mg/kg
LD50 Dermal:	Rabbit dermal LD50:>20000 mg/kg
Inhalation LC50	Rat Inhalation LC50:> Saturated vapour concentration, (1 hr)
Irritation	No skin irritation. No eye irritation. (rabbit)
Sensitization	Not expected to be a sensitizer.
Repeated dose toxicity	Information given is based on data obtained from similar substances. Repeated dose (28 days) toxicity (oral): NOAEL (No Observed Adverse Effect Level) : 2000ppm . Repeated dose toxicity (28 days), Dermal (rabbit): NOAEL (No Observed Adverse Effect Level) : 500 mg/kg bw/d.
Mutagenic Effects	Not mutagenic in AMES Test.
Reproductive Effects	Neither prenatal developmental toxicity nor effects on reproductive organs was seen.

Other Toxicological Information No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity No data is available on the product itself. Information given is based on data obtained from similar substances.

LC50	LC50/96h/fish:12mg/L > Solubility in water
EC50	EC50/48h/Daphnia :10.8 mg/L (estimated by calculation) > Solubility in water
EC50	EC50/72h/algae : 0.9mg/L (estimated by calculation) > Solubility in water

Persistence/Degradability Not expected to be readily biodegradable.

Bioaccumulative Potential Not expected to bioaccumulate. estimated BCF, Fish: 39 . estimated log Pow = 3.825

Mobility in Environmental Media No information available

Other information No information available

13. DISPOSAL CONSIDERATIONS

Waste disposal methods Absorb and landfill. Dispose in a safe manner in accordance with local/national regulations.

14. TRANSPORT INFORMATION

REGULATED

SEA	no
ROAD/RAIL	no
AIR	no

SEA

IMO Class	Not regulated
Packing Group	Not regulated
UN-No	Not regulated
IMO Labelling and Marking	Not regulated
Proper Shipping Name	Not regulated
EmS	Not regulated
Marpol - Annex II	Not regulated
Marpol - Annex III	Not regulated
Transport Description	Not regulated

ROAD/RAIL

ADR/RID Class	Not regulated
Packing Group	Not regulated
UN-No	Not regulated
Hazard Identification No	Not regulated
ADR/RID-Labelling/ Marking	Not regulated
Proper Shipping Name	Not regulated
Transport Description	Not regulated

14. TRANSPORT INFORMATION

AIR

IATA/ICAO Class	Not regulated
Packing Group	Not regulated
UN-No	Not regulated
IATA/ICAO Labelling/Marking	Not regulated
Passenger Aircraft	Not regulated
Cargo aircraft only	Not regulated
Proper shipping name	Not regulated
Transport Description	Not regulated

Uncleaned empty packagings/transport equipments

ROAD/RAIL (ADR/RID)
SEA (IMO/IMDG)

15. REGULATORY INFORMATION

EU Labelling

EC Regulation 1272/2008 (CLP)

Replaces 67/548/EC as from December 1st 2010.
SEE SECTION 2.

67/548/EEC-1999/45/EC (DSD - DPD)

Not regulated under the criteria of Directive 67/548/EC.

Other information

Germany : WGK = 1

International Inventories	TSCA	DSL	NDSL	AICS	EINECS	ELINCS	ENCS	KECL	PICCS	CHINA	NZIoC
Everchem PHT4-Diol-LV-U Flame Retardant	X	X	-	X	X	-	-	X	X	X	-

(X) Complies (-) Does not Comply

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

None.

Hazard Statements

Not regulated under the criteria of EC Regulation N° 1272/2008 (CLP).

Other information

DN(M)EL : Derived Non(Minimum) Effect Level

PNEC : Predicted No Effect Level

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End of Safety Data Sheet