B 2684

Version 1.0 Revision Date 16.06.2017

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : B 2684

Other means of Identification : Liquid Barium Zinc Compound

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

Use of the : Manufacture of plastics products

Substance/Mixture Polymer additive

Stabilizer

Restrictions on Use : None known

1.3 Details of the supplier of the safety data sheet

Company : Baerlocher Production USA LLC

5890 Highland Ridge Drive

Cincinnati, OH 45232

Telephone Day 330-602-1528, 330-602-1531 or -1530

Night 513-207-1620 or 513-604-2327

Hotline.PS@baerlocher.com E-mail address : Product Safety Department Responsible/issuing person

1.4 Emergency telephone number (0 - 24 h)

Tel.: 800-424-9300 USA or 703-527-3887

2. Hazards identification

2.1 Classification of the substance or mixture

Acute toxicity, Category 4 H302: Harmful if swallowed. Skin irritation, Category 2 H315: Causes skin irritation.

Serious eye damage, Category 1 H318: Causes serious eye damage. Skin sensitisation, Category 1 H317: May cause an allergic skin reaction. Germ cell mutagenicity, Category 2 H341: Suspected of causing genetic defects.

Chronic aquatic toxicity, Category 2 H411: Toxic to aquatic life with long lasting effects.

2.2 Label elements

Hazard pictograms









Signal word Danger

Harmful if swallowed. Hazard statements H302

H315 Causes skin irritation.

H317 May cause an allergic skin reaction. Causes serious eye damage. H318

1/41 45533

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017 H341 Suspected of causing genetic defects. Toxic to aquatic life with long lasting effects. H411 Prevention: Precautionary statements P201 Obtain special instructions before use. Wear eye protection/ face protection. P280 P280 Wear protective gloves. P281 Use personal protective equipment as required. Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor.

2.3 Other hazards

Combustible material May produce an allergic reaction.

3. Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

Contains organic solvents.

Hazardous components

Chemical name	CAS-No.	Concentration [%]
Isodecyl diphenyl phosphite	26544-23-0	< 20*
Barium compounds*	Trade Secret*	< 25*
Phenol, 2,4-Bis (1-methyl-1-phenylethyl) -	2772-45-4	< 10*
Isodecanol (mixed isomers)	68526-85-2	< 10*
Distillates (petroleum), hydrotreated light	64742-47-8	< 10*
White mineral oil (petroleum)	8042-47-5	< 10*
Phenol, 2 - (1-Methyl-1-phenylethyl) -4 -	73936-80-8	< 10*
(1,1,3,3-Tetramethyl-butyl) -		
4 - (α, α-dimethylbenzyl) phenol	599-64-4	< 10*
Diisodecyl phenyl phosphite	25550-98-5	< 20*
Dibenzoyl methane	120-46-7	< 10*
2,6-di-tert-butyl-p-cresol	128-37-0	< 10*
Zinc compounds*	Trade Secret*	< 10*
Diphenyl phosphite	4712-55-4	< 10*
2-(2-Butoxyethoxy) ethanol	112-34-5	< 10*
Triisodecyl phosphite	25448-25-3	< 10*
Phenol	108-95-2	< 3*
Triphenyl phosphite	101-02-0	< 10*

45533 2**/**41

B 2684

Version 1.0 Revision Date 16.06.2017

*Trade Secret – The specific chemical identity and/or exact percentage of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first aid measures

General advice : Remove and wash contaminated clothing before re-use.

If inhaled : Move to fresh air.

In case of skin contact : Wash off with soap and plenty of water.

Take off contaminated clothing and shoes immediately.

: Rinse with plenty of water. In case of eye contact

If swallowed Call a physician immediately.

Show this safety data sheet to the doctor in attendance.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms : No information available.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment : Treat symptomatically.

5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Water spray

Foam

Carbon dioxide (CO2)

Dry chemical

Sand

Unsuitable extinguishing

media

: High volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during

firefighting

: Smoke and fumes, toxic.

5.3 Advice for firefighters

Special protective equipment : In the event of fire, wear self-contained breathing apparatus.

for firefighters

Further information : Release of Phenol by hydrolysis.

3/41 45533

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Remove all sources of ignition.

Ensure adequate ventilation. Avoid contact with skin and eyes. Use personal protective equipment.

6.2 Environmental precautions

Environmental precautions : Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

6.3 Methods and materials for containment and cleaning up

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel,

acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For personal protection see section 8.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

Provide sufficient air exchange and/or exhaust in work rooms.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage

areas and containers

: Store at room temperature in the original container. Keep container tightly closed in a dry and well-ventilated

place.

Further information on

storage conditions

: Handle in accordance with good industrial hygiene and safety

practice.

German storage class : 10 Combustible liquids

7.3 Specific end use(s)

: Consult the technical guidelines for the use of this

substance/mixture.

45533 4/41

B 2684

Version 1.0



Revision Date 16.06.2017

8. Exposure controls/personal protection

8.1 Control parameters

		Re	egulatory L	imits	Recomme	nded Limits
		OSH	A PEL	Cal/OSHA PEL	NIOSH REL	ACGIH TLV
Substance	CACNA		/3	8-hour TWA (ST) STEL	Up to 10- hour TWA (ST) STEL	8-hour TWA (ST) STEL
Substance	CAS No.	ppm	mg/m ³	(C) Ceiling	(C) Ceiling	(C) Ceiling
Barium, soluble compounds (as Ba)	7440-39-3		0.5	0.5 mg/m ³	0.5 mg/m ³	0.5 mg/m ³
2-(2-butoxyethoxy) ethanol	112-34-5					10 ppm
Distillates (Petroleum), hydrotreated light	64742-47-8					200 mg/m ³
Phenol	108-95-2	5	19	5 ppm	5 ppm (C) 15.6 ppm [15- min]	5 ppm
White mineral oil (petroleum)	8042-47-5		5	5 mg/m³	5 mg/m³	5 mg/m ³ (ST) 10 mg/m ³
2,6-di-tert-Butyl-p- cresol	128-37-0		10		10 mg/m ³	IHL: 2 mg/m³ (TLV)
Particulates Not Otherwise Regulated (PNOR)						
Respirable fraction			5	5 mg/m ³		3 mg/m ³

45533 5**/**41

SAFETY DATA SHEET

according to 29 CFR § 1910.1200

B 2684

Version 1.0 Revision Date 16.06.2017

8.2 Exposure controls

Engineering measures

Local exhaust

Personal protective equipment

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Protective mask against solvent vapours (A2 Filter)

Hand protection : protective gloves acc. to EN 374, e.g. neoprene

Glove thickness: >= 0,7 mm

Eye protection : Safety glasses

: Long sleeved clothing Skin and body protection

Rubber apron

Hygiene measures : When using do not eat or drink.

Do not smoke.

Wash hands before breaks and at the end of workday.

Shower or bathe at the end of working. Keep working clothes separately.

Protective measures : antistatic shoes

Environmental exposure controls

General advice : Do not flush into surface water or sanitary sewer system.

Avoid subsoil penetration.

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : liquid

Color yellowish Odor : characteristic рΗ : No data available

Boiling point/boiling range : 218 - 800 °C, Value refers to the solvent.

: > 100 °C Flash point

Lower explosion limit : No data available : No data available Upper explosion limit

Vapor pressure : 0,1 hPa, 20 °C, Value refers to the solvent.

: 0,8 - 1,0 g/cm3 Density

6/41 45533

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Water solubility : slightly soluble
Partition coefficient: n- : No data available

octanol/water

Auto-ignition temperature : 325 - 355 °C, Value refers to the solvent.

: No data available Ignition temperature Viscosity, dynamic : No data available : No data available Viscosity, kinematic Odor Threshold : No data available Melting/Freezing Point : No data available **Evaporation Rate** : No data available Flammability : No data available Vapor Density : No data available **Decomposition Temperature** : No data available

9.2 Other information

No data available

10. Stability and reactivity

10.1 Reactivity

Stable at normal ambient temperature and pressure.

10.2 Chemical stability

No decomposition if stored normally.

10.3 Possibility of hazardous reactions

Hazardous reactions : Vapours may form explosive mixture with air.

10.4 Conditions to avoid

Conditions to avoid : Keep away from heat and sources of ignition.

10.5 Incompatible materials

Materials to avoid : Strong oxidizing agents

10.6 Hazardous decomposition products

Hazardous decomposition

products

: No decomposition if used as directed.

45533 7**/**41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

11. Toxicological information

11.1 Information on toxicological effects

Product

Acute oral toxicity : Acute toxicity estimate: 1.725 mg/kg, Calculation method

Acute inhalation toxicity : Acute toxicity estimate: > 5 mg/l, 4 h, dust/mist, Calculation

method

Acute dermal toxicity : Acute toxicity estimate: > 2.000 mg/kg, Calculation method

Components:

Isodecyl diphenyl phosphite:

Acute oral toxicity : LD50: 3.840 mg/kg, Rat, standardised international/national

methodology, Based on available data, the classification

criteria are not met.

Acute inhalation toxicity : LC50: > 8,4 mg/l, 1 h, Rat, dust/mist, OECD Test Guideline

403, GLP: yes, Based on available data, the classification

criteria are not met.

Acute dermal toxicity : LD50: > 5.000 mg/kg, Rabbit, OECD Test Guideline 402,

GLP: yes, Based on available data, the classification criteria

are not met.

Skin corrosion/irritation : Rabbit, Result: slight irritation, standardised

international/national methodology, Based on available data,

the classification criteria are not met.

Serious eye damage/eye

irritation

: Rabbit, Result: Mild eye irritation, standardised

international/national methodology, Based on available data,

the classification criteria are not met.

Respiratory or skin

sensitisation

: Skin sensitisation

: Maximisation Test, Guinea pig, Result: Sensitising, standardised international/national methodology

: Respiratory sensitisation, Based on available data, the

classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro : Mutagenicity (Salmonella typhimurium - reverse mutation

assay), Bacteria, Result: negative, OECD Test Guideline 471,

GLP: yes

 DNA repair-suspension assay, Bacteria, Result: negative, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.

Genotoxicity in vivo : In vivo micronucleus test, Mouse, Oral, OECD Test Guideline

474, GLP: yes, Result: negative,

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

45533 8**/**41



B 2684

Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Screening for reproductive/developmental toxicity, Rat, Exposure time: 16 w, Oral, NOAEL: 15 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Teratogenicity	: Rat, Oral, NOAEL: 15 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Rat, Oral, Exposure time: 16 w, NOAEL: 15 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Barium compounds :	
Acute oral toxicity	: Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute oral toxicity, Category 4
Acute inhalation toxicity	: Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute inhalation toxicity, Category 4
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Not classified due to lack of data.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact

Distillates (petroleum), hydrotreated light:

Acute oral toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 420, GLP:

yes, Based on available data, the classification criteria are not

met.

Acute inhalation toxicity : LC50: > 5,28 mg/l, 4 h, Rat, vapour, OECD Test Guideline

403, GLP: yes, Based on available data, the classification

criteria are not met.

Acute dermal toxicity : LD50: > 2.000 mg/kg, Rabbit, OECD Test Guideline 402,

GLP: yes, Based on available data, the classification criteria

are not met.

45533 9**/**41

BAERLOCHER

B 2684

sion 1.0	Revision Date 16.06.2017	
Serious eye damage/eye irritation	: Rabbit, Result: not irritating, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.	
Respiratory or skin sensitisation	: Skin sensitisation	
	: Buehler Test, Guinea pig, Result: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes, Base available data, the classification criteria are not met.	ed on
	: Respiratory sensitisation	
	: Based on available data, the classification criteria are no	t met.
Germ cell mutagenicity		
Genotoxicity in vitro	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline	
	: In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative, OECD Test Guideline GLP: yes, Based on available data, the classification crite are not met.	
Genotoxicity in vivo	: Genotoxicity in vivo, Rat, intraperitoneally, OECD Test Guideline 478, Result: negative	
	: Genotoxicity in vivo, Mouse, intraperitoneally, OECD Tes Guideline 478, Result: negative	st
	: Genotoxicity in vivo, Mouse, Inhalation, OECD Test Guid 478, Result: negative	leline
	: Mutagenicity (in vivo mammalian bone-marrow cytogene test, chromosomal analysis), Rat, intraperitoneally, OECI Test Guideline 475, GLP: yes, Based on available data, t classification criteria are not met.	D
Carcinogenicity	: Mouse, Skin contact, OECD Test Guideline 451, GLP: ye Based on available data, the classification criteria are no	
Reproductive toxicity	: One-generation reproduction toxicity test, Rat, Oral	
	: Screening for reproductive/developmental toxicity, Rat, S contact, NOAEL: > 494 mg/kg, OECD Test Guideline 42 Based on available data, the classification criteria are no	1,
Teratogenicity	: Rat, Inhalation, OECD Test Guideline 414	
	: Rat, Oral, OECD Test Guideline 414, Based on available the classification criteria are not met.	data,
STOT - single exposure	: Assessment: May cause drowsiness or dizziness.	
STOT - repeated exposure	: Rat, Oral, Exposure time: <= 90 d, Based on available da the classification criteria are not met.	ata,
STOT - repeated exposure	: rat / mouse, Inhalation, Exposure time: 90 d, OECD Test	

45533 10/41

BAERLOCHER

B 2684

rsion 1.0		Revision Date 16.06.2017
STOT - repeated exposure	:	Rat, Dermal, Exposure time: 28 d, OECD Test Guideline 410, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	:	May be fatal if swallowed and enters airways.
Further information	:	CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	:	Likely route of exposure, Inhalation, Ingestion, Skin contact
White mineral oil (petroleum Acute oral toxicity	i) : :	LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 401, GLP: yes, Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	LC50: > 5 mg/l, 4 h, Rat, dust/mist, OECD Test Guideline 403, GLP: yes, Based on available data, the classification criteria are not met.
Acute dermal toxicity	:	LD50: > 2.000 mg/kg, Rabbit, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	:	Rabbit, Result: not irritating, OECD Test Guideline 404, 24 h, GLP: yes, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	:	Rabbit, Result: not irritating, OECD Test Guideline 405, GLP: yes, Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	:	Skin sensitisation
	:	Buehler Test, Guinea pig, Result: Does not cause skin sensitisation., OECD Test Guideline 406, GLP: yes, Based on available data, the classification criteria are not met.
	:	Respiratory sensitisation
	:	Not classified due to lack of data.
Germ cell mutagenicity		
Genotoxicity in vitro	:	Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471
	:	In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative, OECD Test Guideline 476
	:	Read-across (Analogy)
	:	Mutagenicity (in vitro mammalian cytogenetic test), Chinese hamster ovary cells, Result: negative, OECD Test Guideline 473, GLP: yes, Based on available data, the classification criteria are not met.

45533 11/41

BAERLOCHER

B 2684

Version 1.0	Revision Date 16.06.2017
Genotoxicity in vivo	: Read-across (Analogy)
	: In vivo micronucleus test, Mouse, intraperitoneally, OECD Test Guideline 474, Result: negative, Based on available data, the classification criteria are not met.
Carcinogenicity	: Mouse, Dermal, OECD Test Guideline 453
	: Rat, Oral, OECD Test Guideline 453, GLP: yes, Based on available data, the classification criteria are not met.
Reproductive toxicity	: Screening for reproductive/developmental toxicity, Rat, Dermal, NOAEL: >= 1.000 mg/kg, OECD Test Guideline 421
	 One-generation reproduction toxicity test, Rat, Dermal, NOAEL: >= 2.000 mg/kg, OECD Test Guideline 415, Based on available data, the classification criteria are not met.
Teratogenicity	: Rat, Oral, NOAEL: > 5.000 mg/kg, OECD Test Guideline 414, Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Rat, Oral, NOAEL: >= 1.200 mg/kg, OECD Test Guideline 453, GLP: yes
STOT - repeated exposure	: Rat, Inhalation, OECD Test Guideline 412
STOT - repeated exposure	: Rat, Dermal, NOAEL: >= 2.000 mg/kg, OECD Test Guideline 411, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: May be fatal if swallowed and enters airways.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact

4 - $(\alpha, \alpha$ -dimethylbenzyl) phenol:

Acute oral toxicity : LD50: 1.770 mg/kg, Rat

Barium compounds:

Acute oral toxicity : Classification, Labelling according to EC Directives,

Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute

oral toxicity, Category 4

Acute inhalation toxicity : Classification, Labelling according to EC Directives,

Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute

inhalation toxicity, Category 4

Acute dermal toxicity : Read-across (Analogy)

: LD50: > 2000 mg/kg bw, Rat, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria

are not met.

Skin corrosion/irritation : Rabbit, Result: not irritating, OECD Test Guideline 404, 4 h,

45533 12**/**41

BAERLOCHER

B 2684

ersion 1.0	Revision Date 16.06.2017
	GLP: yes, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	 Rabbit, Result: not irritating, OECD Test Guideline 405, GLP: yes, Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Skin sensitisation, Read-across (Analogy)
	 LLNA, Mouse, Result: negative, OECD Test Guideline 429, GLP: yes, Based on available data, the classification criteria are not met.
	 Respiratory sensitisation, Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	: Read-across (Analogy)
	 Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
	: Read-across (Analogy)
	 In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative, OECD Test Guideline 476, GLP: yes
	: Read-across (Analogy)
	 Mutagenicity (in vitro mammalian cytogenetic test), Chinese hamster ovary cells, Result: negative, OECD Test Guideline 473, GLP: yes, Based on available data, the classification criteria are not met.
Carcinogenicity	: Read-across (Analogy)
	 Rat, Exposure time: 2 a, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Reproductive toxicity	: Read-across (Analogy)
	 Rat, Oral, Based on available data, the classification criteria are not met.
Teratogenicity	: Not classified due to lack of data.
	: Study in progress (external)
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Read-across (Analogy)
STOT - repeated exposure	: Rat, Oral, Exposure time: 92 d, NOAEL: 61,1 mg/kg, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.

45533 13/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Further information : CMR effects, Carcinogenicity, Mutagenicity, Reproductive

toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.

: Likely route of exposure, Inhalation, Ingestion, Skin contact

Diisodecyl phenyl phosphite:

Acute oral toxicity : LD50: > 5.000 mg/kg, Rat, OECD Test Guideline 401, GLP:

no, Based on available data, the classification criteria are not

met.

Acute inhalation toxicity : LC50: > 11,7 mg/l, 1 h, Rat, dust/mist, OECD Test Guideline

403, GLP: yes, Based on available data, the classification

criteria are not met.

Acute dermal toxicity : LD50: > 2.000 mg/kg, Rabbit, OECD Test Guideline 402,

GLP: yes, Based on available data, the classification criteria

are not met.

Skin corrosion/irritation : Rabbit, Result: slight irritation, OECD Test Guideline 404,

GLP: yes, Based on available data, the classification criteria

are not met.

Serious eye damage/eye

irritation

: Rabbit, Result: not irritating, OECD Test Guideline 405, GLP: no, Based on available data, the classification criteria are not

met.

Respiratory or skin

sensitisation

: Skin sensitisation

: LLNA, Mouse, Result: Sensitising, OECD Test Guideline 429,

GLP: yes

: Respiratory sensitisation, Based on available data, the

classification criteria are not met.

Germ cell mutagenicity

Genotoxicity in vitro : Mutagenicity (Salmonella typhimurium - reverse mutation

assay), Bacteria, Result: negative, OECD Test Guideline 471,

GLP: yes

: DNA repair-suspension assay, Bacteria, Result: negative,

standardised international/national methodology, GLP: yes,

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

Genotoxicity in vivo : In vivo micronucleus test, Mouse, Oral, OECD Test Guideline

474, GLP: yes, Result: negative,

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

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

Reproductive toxicity : Read-across (Analogy)

: Screening for reproductive/developmental toxicity, Rat, Oral,

Test period: 8 weeks, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the

classification criteria are not met.

45533 14/41

BAERLOCHER

B 2684

2001	
/ersion 1.0	Revision Date 16.06.2017
Teratogenicity	: Read-across (Analogy)
	 Rat, Oral, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Read-across (Analogy)
STOT - repeated exposure	 Rat, Oral, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Dibenzoyl methane :	
Acute oral toxicity	 LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 423, GLP: yes, Based on available data, the classification criteria are not met.
Acute inhalation toxicity	: study scientifically unjustified
Acute dermal toxicity	: LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402, GLP: yes
Skin corrosion/irritation	 in vitro assay, Result: not irritating, OECD Test Guideline 439, GLP: yes, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	 Rabbit, Result: not irritating, OECD Test Guideline 405, Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Skin sensitisation
	: LLNA, Mouse, Result: Sensitising, OECD Test Guideline 429, GLP: yes
	: Respiratory sensitisation
	: Not classified due to lack of data.
Germ cell mutagenicity	
Genotoxicity in vitro	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
	 In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: positive, OECD Test Guideline 476, GLP: yes

45533 15**/**41

BAERLOCHER

B 2684

rsion 1.0	Revision Date 16.06.2017
	: Mutagenicity (in vitro mammalian cytogenetic test), CHL, Result: positive, OECD Test Guideline 487, GLP: yes, Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified due to lack of data.
Reproductive toxicity	: Not classified due to lack of data.
Teratogenicity	: Not classified due to lack of data.
STOT - single exposure	: Remarks: Not classified due to lack of data.
STOT - repeated exposure	: Not classified due to lack of data.
Aspiration toxicity	: Not classified due to lack of data.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
2,6-di-tert-butyl-p-cresol : Acute oral toxicity	: LD50: > 2.930 mg/kg, Rat, OECD Test Guideline 401, GLP: yes, Based on available data, the classification criteria are not met.
Acute inhalation toxicity	: Based on available data, the classification criteria are not met.
Acute dermal toxicity	 LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Rabbit, Result: slight irritation, 24 h, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	 Rabbit, Result: slight irritation, 72 h, Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Skin sensitisation
	 Patch Test 24 Hrs., Humans, Result: negative, standardised international/national methodology, Based on available data, the classification criteria are not met.
	 Respiratory sensitisation, Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	 Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, GLP: no
	: Mutagenicity (in vitro mammalian cytogenetic test), Chinese hamster ovary cells, Result: negative, GLP: no
	: In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: contradictive, GLP: no
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45533 16/41

BAERLOCHER

B 2684

ersion 1.0	Revision Date 16.06.2017
	: In vitro gene mutation study in mammalian cells, Liver cells (rat), Result: negative, GLP: no, Based on available data, the classification criteria are not met.
Genotoxicity in vivo	: In vivo micronucleus test, Mouse, GLP: no, Result: negative
	: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Rat, Oral, 9 months, GLP: no, Result: negative, Based on available data, the classification criteria are not met.
Carcinogenicity	: Rat, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Reproductive toxicity	 Rat, Oral, Test period: 22 months, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Teratogenicity	 Rat, Test period: 22 months, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	 Rat, Oral, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Barium compounds : Acute oral toxicity	: Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute oral toxicity, Category 4
Acute inhalation toxicity	 Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Acute inhalation toxicity, Category 4
Acute dermal toxicity	: Read-across (Analogy)
	: LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	 Rabbit, Result: not irritating, OECD Test Guideline 404, GLP: yes, Based on available data, the classification criteria are not met.
	: in vitro assay, Result: Causes serious eye damage., OECD

45533 17/41

BAERLOCHER

B 2684

B 2684		BAERLOCHER
Version 1.0		Revision Date 16.06.2017
irritation		Test Guideline 437, 240 min, GLP: yes
Respiratory or skin sensitisation	:	Skin sensitisation
	:	Read-across (Analogy), Based on available data, the classification criteria are not met.
	:	Respiratory sensitisation
	:	Read-across (Analogy), Based on available data, the classification criteria are not met.
Germ cell mutagenicity		
Genotoxicity in vitro	:	Read-across (Analogy)
	:	Based on available data, the classification criteria are not met.
Carcinogenicity	:	Read-across (Analogy)
	:	Based on available data, the classification criteria are not met.
Reproductive toxicity	:	Read-across (Analogy)
	:	Suspected of damaging the unborn child.
STOT - single exposure	:	Remarks: Not classified due to lack of data.
STOT - repeated exposure	:	Read-across (Analogy), Based on available data, the classification criteria are not met.
Aspiration toxicity	:	Based on available data, the classification criteria are not met.
Further information	:	CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	:	Likely route of exposure, Inhalation, Ingestion, Skin contact
Zinc compounds : Acute oral toxicity	:	LD50: > 2.000 mg/kg, Rat, standardised international/national methodology, Based on available data, the classification criteria are not met.
Acute inhalation toxicity	:	Not classified due to lack of data.
Acute dermal toxicity	:	Read-across (Analogy)
	:	LD50: > 2.000 mg/kg, Rat, OECD Test Guideline 402, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	:	Read-across (Analogy)
	:	Rabbit, Result: slight irritation, OECD Test Guideline 404, GLP: yes, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	:	Read-across (Analogy)

45533 18/41

BAERLOCHER

B 2684

ion 1.0	Revision Date 16.06.2017
	: Rabbit, Result: irritating, OECD Test Guideline 405, GLP: yes
Respiratory or skin sensitisation	: Skin sensitisation
	 Read-across (Analogy), Based on available data, the classification criteria are not met.
	: Respiratory sensitisation
	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	: Read-across (Analogy)
	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Read-across (Analogy)
	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Read-across (Analogy)
	: Suspected of damaging the unborn child.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Read-across (Analogy), Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Zinc compounds :	
Acute oral toxicity	: LD50: 1.100 mg/kg, Rat, OECD Test Guideline 401, GLP: no, Test substance: Solid
Acute inhalation toxicity	: LC50: 2000 mg/m³ air, 10 min, Rat, GLP: no, Test substance: aerosol, Based on available data, the classification criteria are not met.
Acute dermal toxicity	: Read-across (Analogy)
	 LD50: > 2.000 mg/kg, Rabbit, OECD Test Guideline 402, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	: Causes severe burns.
Serious eye damage/eye irritation	: Causes severe burns.

45533 19/41

BAERLOCHER

B 2684

Respiratory or skin sensitisation Read-across (Analogy) LLNA, Mouse, Result: negative, Based on available data, the classification criteria are not met. Respiratory sensitisation Based on available data, the classification criteria are not met. Read-across (Analogy) Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative, DECD Test Guideline 471, GLP: yes In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Genotoxicity in vivo Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Teratogenicity Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7.5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity Read-across (Analogy) Tat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - repeated exposure Read-across (Analogy) Tat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid, Sased on available data, the classification criteria are not met. Read-across (Analogy) Based on available data, the classification criteria are not met.	Version 1.0	Revision Date 16.06.2017
: LLNA, Mouse, Result: negative, Based on available data, the classification criteria are not met. : Respiratory sensitisation : Based on available data, the classification criteria are not met. Germ cell mutagenicity Genotoxicity in vitro : Read-across (Analogy) : Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes : In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative : Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Genotoxicity in vivo : Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive : Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity : Based on available data, the classification criteria are not met. Carcinogenicity : Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity : Read-across (Analogy) : rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - repeated exposure : Read-across (Analogy) : rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - repeated exposure : Read-across (Analogy) : rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met.		: Skin sensitisation
classification criteria are not met. Respiratory sensitisation: Based on available data, the classification criteria are not met. Germ cell mutagenicity Read-across (Analogy) Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Genotoxicity in vivo Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Carcinogenicity: Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity: Read-across (Analogy) rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - repeated exposure: Read-across (Analogy) rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure: Read-across (Analogy) Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.		: Read-across (Analogy)
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Gemotoxicity in vitro Read-across (Analogy) Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Genotoxicity in vivo Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Teratogenicity Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity Read-across (Analogy) rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - repeated exposure Read-across (Analogy) rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure Read-across (Analogy)		: Respiratory sensitisation
Genotoxicity in vitro Read-across (Analogy) Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes In vitro gene mutation study in mammalian cells, mouse lymphoma cells, Result: negative Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity Read-across (Analogy) rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure Read-across (Analogy) rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure Read-across (Analogy) Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.		: Based on available data, the classification criteria are not met.
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lymphoma cells, Result: negative Chromosome aberration test in vitro, human cells, Result: negative, Based on available data, the classification criteria are not met. Genotoxicity in vivo Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis), Mouse, Oral, 1 m, Result: positive Genotoxicity in vivo, Drosophila melanogaster, Oral, Result: negative, Based on available data, the classification criteria are not met. Carcinogenicity Based on available data, the classification criteria are not met. Teratogenicity Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity Read-across (Analogy) rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure Read-across (Analogy) Trat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure Read-across (Analogy) Read-across (Analogy) Tat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met.		assay), Bacteria, Result: negative, OECD Test Guideline 471,
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negative, Based on available data, the classification criteria are not met. Carcinogenicity: Based on available data, the classification criteria are not met. Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity: Read-across (Analogy): rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure: Assessment: May cause respiratory irritation. STOT - repeated exposure: Read-across (Analogy): rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure: Read-across (Analogy): Read-across (An	Genotoxicity in vivo	test, chromosomal analysis), Mouse, Oral, 1 m, Result:
Reproductive toxicity : Two-generation reproductive toxicity, Rat, Oral, NOAEL: 7,5 mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity : Read-across (Analogy) : rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure : Assessment: May cause respiratory irritation. STOT - repeated exposure : Read-across (Analogy) : rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : Read-across (Analogy) : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.		negative,
mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid, Based on available data, the classification criteria are not met. Teratogenicity: Read-across (Analogy): rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure: Assessment: May cause respiratory irritation. STOT - repeated exposure: Read-across (Analogy): rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure: Read-across (Analogy): Read-across (Analogy): Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	Carcinogenicity	: Based on available data, the classification criteria are not met.
: rat / mouse / rabbit / hamster, Oral, Based on available data, the classification criteria are not met. STOT - single exposure : Assessment: May cause respiratory irritation. STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	Reproductive toxicity	mg/kg, OECD Test Guideline 416, GLP: no, Test substance: Solid,
the classification criteria are not met. STOT - single exposure : Assessment: May cause respiratory irritation. STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	Teratogenicity	: Read-across (Analogy)
STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : rat / mouse, Oral, Exposure time: 13 w, NOAEL: 3000 ppm in diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.		
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diet, OECD Test Guideline 408, GLP: no, Test substance: Solid STOT - repeated exposure : Read-across (Analogy) STOT - repeated exposure : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	STOT - repeated exposure	: Read-across (Analogy)
STOT - repeated exposure : Rat, Oral, Exposure time: 13 w, NOAEL: 31,52 mg/kg, OECD Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	STOT - repeated exposure	diet, OECD Test Guideline 408, GLP: no, Test substance:
Test Guideline 408, GLP: yes, Test substance: Solid, Based on available data, the classification criteria are not met.	STOT - repeated exposure	: Read-across (Analogy)
Aspiration toxicity : Based on available data, the classification criteria are not met.	STOT - repeated exposure	Test Guideline 408, GLP: yes, Test substance: Solid, Based
	Aspiration toxicity	: Based on available data, the classification criteria are not met.

45533 20/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Further information : CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.

: Likely route of exposure, Inhalation, Ingestion, Skin contact

2-(2-Butoxyethoxy) ethanol:

Acute oral toxicity : LD50: 2.410 mg/kg, Mouse(male), OECD Test Guideline 401,

GLP: no, Based on available data, the classification criteria

are not met.

Acute inhalation toxicity : LC50: > 0,35 mg/l, 4 h, Rat, vapour, Expert judgement, >

Saturated vapour concentration

: LC0: 0,35 mg/l, 14 d, Rat, vapour, OECD Test Guideline 412,

GLP: yes, > Saturated vapour concentration

: LC50: > 29 ppm, 2 h, Rat, vapour, OECD Test Guideline 403,

GLP: no, Based on available data, the classification criteria

are not met.

Acute dermal toxicity : LD50: 2.764 mg/kg, Rabbit, OECD Test Guideline 402, GLP:

no, Based on available data, the classification criteria are not

met.

Skin corrosion/irritation : Rabbit, Result: slight irritation, OECD Test Guideline 404, 1 h,

GLP: no, Based on available data, the classification criteria

are not met.

Serious eye damage/eye

irritation

: Rabbit, Result: highly irritant, OECD Test Guideline 405, GLP:

no

Respiratory or skin sensitisation

: Skin sensitisation

 Maximisation Test, Guinea pig, Result: Does not cause skin sensitisation., OECD Test Guideline 406, Based on available

data, the classification criteria are not met.

Respiratory sensitisation, Not classified due to lack of data.

Germ cell mutagenicity

Genotoxicity in vitro : Mutagenicity (Salmonella typhimurium - reverse mutation

assay), Bacteria, Result: negative, OECD Test Guideline 471

: In vitro gene mutation study in mammalian cells, Chinese hamster ovary cells, Result: negative, OECD Test Guideline

476, GLP: yes

: Mutagenicity (in vitro mammalian cytogenetic test), Chinese

hamster ovary cells, Result: negative, OECD Test Guideline 473. Based on available data, the classification criteria are not

met.

Genotoxicity in vivo : Mutagenicity (in vivo mammalian bone-marrow cytogenetic

test, chromosomal analysis), Mouse, Oral, OECD Test

Guideline 475, Result: negative,

45533 21**/**41

BAERLOCHER

B 2684

rsion 1.0	Revision Date 16.06.2017
	Based on available data, the classification criteria are not met.
Carcinogenicity	: Not classified due to lack of data.
Reproductive toxicity	: Read-across (Analogy)
	 Two-generation study, Mouse, Oral, standardised international/national methodology, Based on available data, the classification criteria are not met.
Teratogenicity	: Rabbit, Skin contact, OECD Test Guideline 414
	 Rat, Oral, OECD Test Guideline 414, Based on available data the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Rat, Oral, standardised international/national methodology, GLP: yes
STOT - repeated exposure	: Rat, Dermal, standardised international/national methodology
STOT - repeated exposure	 Rat, Inhalation, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Not classified due to lack of data.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Triisodecyl phosphite : Acute oral toxicity	: LD50: 13.800 mg/kg, Rat, OECD Test Guideline 401, Based on available data, the classification criteria are not met.
Acute inhalation toxicity	: Read-across (Analogy)
	: LC50: > 12,6 mg/l, 1 h, Rat, dust/mist, OECD Test Guideline 403, GLP: yes, Based on available data, the classification criteria are not met.
Acute dermal toxicity	: Read-across (Analogy)
	 LD50: > 5.000 mg/kg, Rabbit, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	 Rabbit, Result: slight irritation, standardised international/national methodology, 24 h, Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation	: Rabbit, Result: not irritating, standardised international/national methodology, Based on available data, the classification criteria are not met.

45533 22/41

BAERLOCHER

B 2684

sion 1.0	Revision Date 16.06.2017
Respiratory or skin sensitisation	: LLNA, Mouse, Result: Sensitising, OECD Test Guideline 429, GLP: yes
Germ cell mutagenicity	
Genotoxicity in vitro	: Read-across (Analogy)
	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
	: Read-across (Analogy)
	: DNA repair-suspension assay, Bacteria, Result: negative, standardised international/national methodology, GLP: yes, Based on available data, the classification criteria are not met.
Genotoxicity in vivo	: Read-across (Analogy)
	: In vivo micronucleus test, Mouse, Oral, OECD Test Guideline 474, GLP: yes, Result: negative, Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Screening for reproductive/developmental toxicity, Rat, Oral, Test period: 8 weeks, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Teratogenicity	: Rat, Oral, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: Rat, Oral, NOAEL: 1.000 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Phenol :	
Acute oral toxicity	: LD50: 340 - 540 mg/kg, Rat, OECD Test Guideline 401
Acute inhalation toxicity	: LC0: 0,9 mg/l, 8 h, Rat, dust/mist, OECD Test Guideline 403
	: LC50: > 0,9 mg/l, 4 h, Rat, dust/mist, OECD Test Guideline 403
Acute dermal toxicity	: LD50: 660 mg/kg bw, Rat(female), OECD Test Guideline 402

45533 23/41

BAERLOCHER

B 2684

Version 1.0	Revision Date 16.06.2017
Skin corrosion/irritation	: Result: irritating, Regulation (EC) No. 761/2009, B.46., 1 h, GLP: yes
	: Result: Corrosive, OECD Test Guideline 431, 3 min - 1 h, GLP: yes
	: Rabbit, Result: Corrosive, standardised international/national methodology, 24 h
	: Rat, Result: Corrosive, 1 min
Serious eye damage/eye irritation	: Rabbit, Result: Corrosive, OECD Test Guideline 405
Respiratory or skin sensitisation	: Skin sensitisation
	 Buehler Test, Guinea pig, Result: Does not cause skin sensitisation., OECD Test Guideline 406
	: LLNA, Mouse, Result: negative, Based on available data, the classification criteria are not met.
	: Respiratory sensitisation, Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
	: Mutagenicity (in vitro mammalian cytogenetic test), Chinese hamster ovary cells, Result: positive, OECD Test Guideline 473
Genotoxicity in vivo	: In vivo micronucleus test, Mouse, 24 - 48 h, OECD Test Guideline 474, GLP: yes, Result: positive
Carcinogenicity	: Mouse, Exposure time: 103 weeks, Oral, OECD Test Guideline 451
	 Rat, Exposure time: 103 weeks, Oral, OECD Test Guideline 451, Based on available data, the classification criteria are not met.
Reproductive toxicity	: Two-generation reproductive toxicity, Rat, Oral, OECD Test Guideline 416, GLP: yes, Based on available data, the classification criteria are not met.
Teratogenicity	 Rat, Test period: 14 d, Oral, standardised international/national methodology, GLP: yes
	 Mouse, Test period: 12 d, Oral, standardised international/national methodology, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: May cause damage to organs through prolonged or repeated

45533 24/41

BAERLOCHER

B 2684

sion 1.0	Revision Date 16.06.2017
	exposure., Kidney, Liver, Nervous system, Skin, Heart, Immune system, Lungs, Bone marrow
	: Remarks: Classification, Labelling according to EC Directives, Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Category 2
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	: CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met.
	: Likely route of exposure, Inhalation, Ingestion, Skin contact
Triphenyl phosphite : Acute oral toxicity	: LD50: 1.590 mg/kg, rat, OECD Test Guideline 401, GLP: yes
Acute inhalation toxicity	 LC50: > 6,7 mg/l, 1 h, rat, dust/mist, OECD Test Guideline 403, GLP: yes, Based on available data, the classification criteria are not met.
Acute dermal toxicity	 LD50: > 2.000 mg/kg, rabbit, OECD Test Guideline 402, GLP: yes, Based on available data, the classification criteria are not met.
Skin corrosion/irritation	 guinea pig, Result: slight irritation, standardised international/national methodology, 24 h
Serious eye damage/eye irritation	: rabbit, Result: irritating, OECD Test Guideline 405, GLP: no
Respiratory or skin sensitisation	: Skin sensitisation
	: LLNA, mouse, Result: Sensitising, OECD Test Guideline 429, GLP: yes
	 Respiratory sensitisation, Based on available data, the classification criteria are not met.
Germ cell mutagenicity	
Genotoxicity in vitro	: Mutagenicity (Salmonella typhimurium - reverse mutation assay), Bacteria, Result: negative, OECD Test Guideline 471, GLP: yes
	: DNA repair-suspension assay, Bacteria, Result: negative, Based on available data, the classification criteria are not met.
Genotoxicity in vivo	 In vivo micronucleus test, mouse, Oral, OECD Test Guideline 474, GLP: yes, Result: negative, Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Screening for reproductive/developmental toxicity, rat, Oral, NOAEL: F1: 15 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.

45533 25**/**41

BAERLOCHER

B 2684

Version 1.0	Revision Date 16.06.2017
Teratogenicity	: rat, Oral, NOAEL: 15 mg/kg bw/day, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
STOT - single exposure	: Remarks: Based on available data, the classification criteria are not met.
STOT - repeated exposure	: rat, Oral, Exposure time: 16 weeks, NOAEL: 15 mg/kg, OECD Test Guideline 422, GLP: yes, Based on available data, the classification criteria are not met.
Aspiration toxicity	: Based on available data, the classification criteria are not met.
Further information	 CMR effects, Carcinogenicity, Mutagenicity, Reproductive toxicity, Hazard assessment, Category 1A, Category 1B, Based on available data, the classification criteria are not met. Likely route of exposure, Inhalation, Ingestion, Skin contact

11.2 Carcinogenicity

Contains no known or suspected carcinogens listed by IARC, NTP or OSHA at or above reportable quantities.

12. Ecological information

12.1 Toxicity

Components:

Isodecyl diphenyl phosphite:

Toxicity to fish

Toxicity to daphnia and other

aquatic invertebrates

Toxicity to algae

study technically not feasible

study technically not feasible

study technically not feasible

Toxicity to bacteria

study technically not feasible

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

Barium compounds:

Ecotoxicology Assessment

Acute aquatic toxicity : Not classified due to lack of data.

Chronic aquatic toxicity : Not classified due to lack of data.

Distillates (petroleum), hydrotreated light:

45533 26**/**41

BAERLOCHER

B 2684

ersion 1.0		Revision Date 16.06.2017
Toxicity to fish	:	LL50: 2,5 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), semi-static test, OECD Test Guideline 203, GLP: yes, Value refered to the Water accumulated fraction (WAF).
Toxicity to daphnia and other aquatic invertebrates	:	EL50: 1,4 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202, GLP: yes,
Toxicity to algae	:	Value refered to the Water accumulated fraction (WAF). EL50: 1,3 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), static test, OECD Test Guideline 201, GLP: yes,
Toxicity to bacteria	:	Value refered to the Water accumulated fraction (WAF). LL50: 677,9 mg/l, 72 h, Tetrahymena pyriformis, QSAR, GLP: no
Toxicity to fish (Chronic toxicity)	:	NOEL: 0,098 mg/l, 28 d, Oncorhynchus mykiss (rainbow trout), QSAR, GLP: no
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) White mineral oil (petroleum)		NOEL: 0,48 mg/l, 21 d, Daphnia magna (Water flea), semi- static test, OECD Test Guideline 211, GLP: yes, Value refered to the Water accumulated fraction (WAF).
Toxicity to fish		LL50: > 100 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), static test, OECD Test Guideline 203,
Toxicity to daphnia and other aquatic invertebrates	:	Value refered to the Water accumulated fraction (WAF). LL50: >= 100 mg/l, 48 h, Daphnia magna (Water flea), static test, OECD Test Guideline 202,
Toxicity to algae	:	Value refered to the Water accumulated fraction (WAF). NOEL: >= 100 mg/l, 72 h, Pseudokirchneriella subcapitata (green algae), static test, OECD Test Guideline 201, Value refered to the Water accumulated fraction (WAF).
Toxicity to bacteria	:	LOEL (lowest observed effect level): 93 d, Bacteria, standardised international/national methodology
Toxicity to fish (Chronic toxicity)	:	NOEL: >= 1.000 mg/l, 28 d, Oncorhynchus mykiss (rainbow trout), QSAR
Toxicity to daphnia and other aquatic invertebrates	:	Read-across (Analogy)
(Chronic toxicity)		NOEL: 10 mg/l, 21 d, Daphnia magna (Water flea), semi-static test, OECD Test Guideline 211, GLP: yes, Value refered to the Water accumulated fraction (WAF).
Ecotoxicology Assessment		value refered to the vivater accumulated fraction (VVAF).
Acute aquatic toxicity	:	Based on available data, the classification criteria are not met.
Chronic aquatic toxicity	:	Based on available data, the classification criteria are not met.
Phenol, 2 - (1-Methyl-1-pheny	ylet	thyl) -4 - (1,1,3,3-Tetramethyl-butyl) - :
Toxicity to fish		LC50: 1 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout)

4 - $(\alpha, \alpha$ -dimethylbenzyl) phenol :

Toxicity to bacteria

45533 27/41

: EC50: 1,4 mg/l, 72 h

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Barium compounds:

Toxicity to fish

Read-across (Analogy)

: LC50: > 97.5 mg Ba/L, 96 h, Danio rerio (zebra fish), static

test, OECD Test Guideline 203, GLP: yes

Toxicity to daphnia and other

aquatic invertebrates

Read-across (Analogy)

LC50: 14,5 mg Ba/L, 48 h, Daphnia magna (Water flea), static

test

Toxicity to algae

Read-across (Analogy)

: NOEC: >= 34,31 mg Ba/L, 72 h, Pseudokirchneriella

subcapitata (green algae), static test, OECD Test Guideline

201, GLP: yes

: EC50: > 34,31 mg Ba/L, 72 h, Pseudokirchneriella subcapitata

(green algae), static test, OECD Test Guideline 201, GLP: yes

Toxicity to bacteria

Read-across (Analogy)

: NOEC: >= 500,61 mg Ba/L, 3 h, activated sludge, Respiration

inhibition, OECD Test Guideline 209, GLP: yes

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

Read-across (Analogy)

EC16: 5.8 mg/l, 21 d, Daphnia magna (Water flea), semi-static

test, OECD Test Guideline 211

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

Diisodecyl phenyl phosphite:

Toxicity to fish : > 100 mg/l, 48 h, Leuciscus idus (Golden orfe), static test,

OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50: 0,2 mg/l, 48 h, Daphnia magna (Water flea), static test,

OECD Test Guideline 202, GLP: yes

Toxicity to algae : EC50: 45 mg/l, 72 h, Desmodesmus subspicatus (green

algae), static test, OECD Test Guideline 201, GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

45533 28**/**41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Dibenzoyl methane:

Toxicity to fish : LC50: 11,313 mg/l, 96 h, QSAR

Toxicity to daphnia and other

aquatic invertebrates

Toxicity to algae

: LC50: 7,519 mg/l, 48 h, QSAR

: 2,68 mg/l, 96 h, QSAR

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

2,6-di-tert-butyl-p-cresol:

Toxicity to fish : LC0: >= 0,57 mg/l, 96 h, Danio rerio (zebra fish), semi-static

test, Directive 67/548/EEC, Annex V, C.1., GLP: yes

Toxicity to daphnia and other

aquatic invertebrates

: NOEC: 0,15 - 0,23 mg/l, 48 h, Daphnia magna (Water flea),

static test, OECD Test Guideline 202, GLP: yes

Toxicity to algae : EC50: > 0,4 mg/l, 72 h, Desmodesmus subspicatus (green

algae), static test, Directive 67/548/EEC, Annex V, C.3., GLP:

yes

Toxicity to bacteria : EC50: > 10.000 mg/l, 3 h, activated sludge, Respiration

inhibition, standardised international/national methodology,

GLP: yes

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: EC50: 0,39 mg/l, 21 d, Daphnia magna (Water flea), semistatic test, standardised international/national methodology,

GLP: yes

NOEC: 0,316 mg/l, 21 d, Daphnia magna (Water flea), semistatic test, standardised international/national methodology,

GLP: yes

Barium compounds:

Toxicity to fish

Read-across (Analogy)

EC50: > 97.5 mg Ba/L, 96 h, Danio rerio (zebra fish), static

test, OECD Test Guideline 203, GLP: yes

Toxicity to daphnia and other

aquatic invertebrates

Read-across (Analogy)

: LC50: 14.5 mg Ba/L, 96 h, Daphnia magna (Water flea), static

test, standardised international/national methodology

Toxicity to algae

Read-across (Analogy)

EC50: > 34,3 mg Ba/L, 72 h, Pseudokirchneriella subcapitata

(green algae), static test, OECD Test Guideline 201, GLP: yes

45533 29/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Toxicity to bacteria

Read-across (Analogy)

: EC50: > 500 mg Ba/L, 3 h, activated sludge, Respiration

inhibition, OECD Test Guideline 209, GLP: yes

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Based on available data, the classification criteria are not met.

Zinc compounds:

Toxicity to fish

Read-across (Analogy)

: LC50: 100 mg/l, 96 h, Cyprinus carpio (Carp), OECD Test

Guideline 203, GLP: yes

Toxicity to daphnia and other

aquatic invertebrates

Read-across (Analogy)

: EC50: 5 mg/l, 48 h, Daphnia magna (Water flea), static test,

OECD Test Guideline 202, GLP: yes

Toxicity to algae

Read-across (Analogy)

EC50: 2,72 mg/l, 72 h, Pseudokirchneriella subcapitata (green

algae), static test, OECD Test Guideline 201, GLP: yes

Toxicity to bacteria : IC50: > 100 mg/l, 3 h, activated sludge, static test, OECD Test

Guideline 209

Toxicity to fish (Chronic

toxicity)

Read-across (Analogy)

NOEC: 0,044 - 0,530 mg Zn/L, Fresh water

Read-across (Analogy)

NOEC: 0,025 mg Zn/L, Marine water

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

Read-across (Analogy)

NOEC: 0,037 - 0,400 mg Zn/L, Fresh water

Read-across (Analogy)

NOEC: 0,0056 - 0,9 mg Zn/L, Marine water

Ecotoxicology Assessment

Acute aquatic toxicity : Based on available data, the classification criteria are not met.

Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.

45533 30/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Zinc compounds:

Toxicity to fish

Read-across (Analogy)

: LC50: 0,169 mg Zn/L, 96 h, Oncorhynchus mykiss (rainbow

trout)

:

Read-across (Analogy)

: LC50: 0,330 - 0,780 mg Zn/L, 96 h, Pimephales promelas

(fathead minnow)

Toxicity to daphnia and other

aquatic invertebrates

Read-across (Analogy)

LC50: 0.147 - > 0,53 mg Zn/l, Ceriodaphnia dubia (water flea)

Toxicity to algae

Read-across (Analogy)

: IC50: 0,136 mg Zn/L, 72 h, Selenastrum capricornutum (green

algae)

Toxicity to bacteria

Read-across (Analogy)

: EC50: 5,2 mg Zn/l, 3 h, activated sludge

Toxicity to fish (Chronic

toxicity)

Read-across (Analogy)

NOEC: 0,044 - 0,530 mg Zn/L, Fresh water

Read-across (Analogy)

NOEC: 0,025 mg Zn/L, Marine water

Toxicity to daphnia and other

aquatic invertebrates

(Chronic toxicity)

Read-across (Analogy)

NOEC: 0,037 - 0,400 mg Zn/L, Fresh water

Read-across (Analogy)

NOEC: 0,0056 - 0,9 mg Zn/L, Marine water

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

Chronic aquatic toxicity : Very toxic to aquatic life with long lasting effects.

2-(2-Butoxyethoxy) ethanol:

Toxicity to fish : LC50: 1.300 mg/l, 96 h, Lepomis macrochirus (Bluegill

sunfish), static test, OECD Test Guideline 203, GLP: no

Toxicity to daphnia and other : NOEC: >= 100 mg/l, 48 h, Daphnia magna (Water flea), static

45533 31**/**41

BAERLOCHER

B 2684

B 2684		BAERLOCK
Version 1.0		Revision Date 16.06.2017
aquatic invertebrates		test, OECD Test Guideline 202, GLP: yes
Toxicity to algae	:	NOEC: > 100 mg/l, 96 h, Desmodesmus subspicatus (green algae), static test, OECD Test Guideline 201, GLP: yes
Toxicity to bacteria	:	EC10: > 1.995 mg/l, 0,5 h, activated sludge, Respiration inhibition, OECD Test Guideline 209, GLP: no
Ecotoxicology Assessment		
Acute aquatic toxicity	:	Based on available data, the classification criteria are not met.
Chronic aquatic toxicity	:	Based on available data, the classification criteria are not met.
Triisodecyl phosphite :		
Toxicity to daphnia and other aquatic invertebrates Toxicity to algae Toxicity to bacteria Toxicity to fish (Chronic toxicity) Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) Ecotoxicology Assessment Acute aquatic toxicity		study technically not feasible
Chronic aquatic toxicity	•	Based on available data, the classification criteria are not met.
Phenol: Toxicity to fish		NOEC: 4 mg/l, 14 d, Poecilia reticulata (guppy), semi-static test, OECD Test Guideline 204, GLP: yes LC50: 8,9 mg/l, 96 h, Oncorhynchus mykiss (rainbow trout), flow-through test, standardised international/national methodology
Toxicity to daphnia and other aquatic invertebrates	:	EC50: 3,1 mg/l, 48 h, Ceriodaphnia dubia (water flea), static test, standardised international/national methodology, GLP: no
Toxicity to algae	:	EC50: 61,1 mg/l, 96 h, Pseudokirchneriella subcapitata (green algae), static test, standardised international/national methodology
	:	EC50: 157 mg phenol/L, 7 d, Lemna minor (duckweed), static test, standardised international/national methodology, GLP: no

45533 32/41

: EC50: 61,82 mg/L, 7 d, Lemna minor (duckweed), Growth

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

inhibition, standardised international/national methodology,

GLP: yes

Toxicity to bacteria : IC50: 21 mg/l, 24 h, Bacteria, GLP: no

Toxicity to fish (Chronic

toxicity)

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: NOEC: 0,077 mg/l, 60 d, Cirrhina mrigala, semi-static test

: NOEC: 0,16 mg/l, 16 d, Daphnia magna (Water flea), semistatic test, standardised international/national methodology

Triphenyl phosphite:

Toxicity to fish

Toxicity to daphnia and other

aquatic invertebrates
Toxicity to algae

study technically not feasible

study technically not feasible

study technically not feasible

Toxicity to bacteria

study scientifically unjustified

Ecotoxicology Assessment

Acute aquatic toxicity : Classification, Labelling according to EC Directives,

Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Very

toxic to aquatic life.

Chronic aquatic toxicity : Classification, Labelling according to EC Directives,

Regulation (EC) No 1272/2008, Annex VI, Table 3.1, Very

toxic to aquatic life with long lasting effects.

12.2 Persistence and degradability

Components:

Isodecyl diphenyl phosphite:

Biodegradability : aerobic, 0,14 %, Exposure time: 28 d, activated sludge, OECD

Test Guideline 301D,

Not readily biodegradable.

Barium compounds:

Biodegradability

The methods for determining biodegradability are not

applicable to inorganic substances.

Distillates (petroleum), hydrotreated light:

Biodegradability : aerobic, 61 %, Result: Readily biodegradable, Exposure time:

28 d, activated sludge, OECD Test Guideline 301F, GLP: yes

White mineral oil (petroleum):

Biodegradability

Read-across (Analogy)

45533 33/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

: aerobic, 31 %, Result: Inherently biodegradable., Exposure time: 28 d, activated sludge, OECD Test Guideline 301F,

GLP: yes

Barium compounds:

Biodegradability

The organic components of the product are biodegradable.

The methods for determining biodegradability are not

applicable to inorganic substances.

Diisodecyl phenyl phosphite:

Biodegradability : aerobic, 10 %, Result: Inherently biodegradable., Exposure

time: 28 d, activated sludge, OECD Test Guideline 301B,

GLP: yes

Dibenzoyl methane:

Biodegradability : aerobic, 89 %, Result: Readily biodegradable, Exposure time:

28 d, activated sludge, ISO 9439

2,6-di-tert-butyl-p-cresol:

Biodegradability : aerobic, Result: Readily biodegradable, Exposure time: 112 d,

activated sludge, OECD Test Guideline 301, GLP: no

: aerobic, Biochemical oxygen demand, Result: Partially

biodegradable., Exposure time: 28 d, activated sludge, OECD

Test Guideline 301

aerobic, Result: Biodegradable, Exposure time: 24 d, Soil,

OECD Test Guideline 304A, GLP: no,

According to the results of tests of biodegradability this product is considered as being readily biodegradable.

Barium compounds:

Biodegradability

The organic components of the product are biodegradable.

:

The methods for determining biodegradability are not

applicable to inorganic substances.

Zinc compounds:

Biodegradability

Read-across (Analogy)

: aerobic, 70 %, Result: Readily biodegradable, Exposure time: 28 d, activated sludge, OECD Test Guideline 301D, GLP: yes

Zinc compounds:

Biodegradability

The methods for determining biodegradability are not

applicable to inorganic substances.

2-(2-Butoxyethoxy) ethanol:

45533 34**/**41

B 2684

Version 1.0 Revision Date 16.06.2017

: aerobic, 85 %, Result: Readily biodegradable, Exposure time: Biodegradability

28 d, activated sludge, OECD Test Guideline 301C, GLP: no

Triisodecyl phosphite:

Biodegradability : aerobic, 0,47 %, Result: Not readily biodegradable., Exposure

time: 28 d, activated sludge, OECD Test Guideline 301D

Phenol:

Biodegradability : Ready biodegradability, Result: Readily biodegradable,

Exposure time: 10 d, activated sludge, OECD Test Guideline

: aerobic, Result: Biodegradable, Exposure time: 20 d, Marine

water

: anaerobic, Result: Biodegradable, Exposure time: 50 d,

activated sludge, standardised international/national

methodology

: aerobic, Result: Readily biodegradable, Exposure time: 3 d.

Estuary sediment, standardised international/national

methodology

: anaerobic, Result: Biodegradable, Exposure time: 42 d,

activated sludge, standardised international/national

methodology

: aerobic, Result: Biodegradable, Exposure time: 70 d, Soil

Triphenyl phosphite:

Biodegradability : aerobic, 2,46 %, Result: Not readily biodegradable., Exposure

time: 28 d, OECD Test Guideline 301D, GLP: No information

available.

12.3 Bioaccumulative potential

Components:

Isodecyl diphenyl phosphite:

Bioaccumulation Bioconcentration factor (BCF): 606,5, QSAR

Barium compounds:

Bioaccumulation

Read-across (Analogy)

Bioaccumulation is unlikely.

Distillates (petroleum), hydrotreated light:

Bioaccumulation

No data available

White mineral oil (petroleum):

Bioaccumulation

No data available

35/41 45533

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Barium compounds:

Bioaccumulation

Read-across (Analogy)

Bioconcentration factor (BCF): 6,4 - 74,4,

Barium

Diisodecyl phenyl phosphite:

Bioaccumulation : Bioconcentration factor (BCF): 33,27 - 606,5, QSAR

Dibenzoyl methane:

Bioaccumulation

study scientifically unjustified

2,6-di-tert-butyl-p-cresol:

Bioaccumulation : Cyprinus carpio (Carp), Exposure time: 28 d, 25 °C,

Concentration: 0,005 mg/l, Bioconcentration factor (BCF): 330 - 1.800, standardised international/national methodology

: Cyprinus carpio (Carp), Exposure time: 56 d, 25 °C,

Concentration: 0,05 mg/l, Bioconcentration factor (BCF): 230 - 2.500, standardised international/national methodology

Barium compounds:

Bioaccumulation

Read-across (Analogy)

:

This substance is not considered to be bioaccumulating.

Zinc compounds:

Bioaccumulation

Read-across (Analogy), This substance is not considered to

be bioaccumulating.

Zinc compounds:

Bioaccumulation

Bioaccumulation is unlikely.

2-(2-Butoxyethoxy) ethanol:

Bioaccumulation

Bioaccumulation is unlikely.

Triisodecyl phosphite:

Bioaccumulation

study scientifically unjustified

Phenol:

Bioaccumulation : Fish, Exposure time: 5 h, 25 °C, Bioconcentration factor

(BCF): 17.5, standardised international/national methodology.

Bioaccumulation is unlikely.

Triphenyl phosphite:

Bioaccumulation : Bioconcentration factor (BCF): 862,2 - 10.902, QSAR,

Hydrolysis, not considered

12.4 Mobility in soil

Components:

Isodecyl diphenyl phosphite:

Mobility : QSAR, Predicted distribution to environmental compartments,

Sediment, Soil

Barium compounds:

45533 36**/**41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Mobility : No data available Distillates (petroleum), hydrotreated light :

Mobility : QSAR, Predicted distribution to environmental compartments,

Air

Physico-chemical : The product is slightly soluble in water. It can be largely

removability eliminated from the water by abiotic processes, e. g.

mechanical separation.

White mineral oil (petroleum):

Mobility : The product is insoluble and floats on water.

QSAR, Predicted distribution to environmental compartments,

Sediment, Soil

Barium compounds:

Mobility : No data available

Diisodecyl phenyl phosphite:

Mobility : QSAR, Predicted distribution to environmental compartments,

Sediment, Soil

Dibenzoyl methane:

Mobility : No data available

2,6-di-tert-butyl-p-cresol:

Mobility : After release, disperses into the air.

Barium compounds:

Mobility : Not applicable

Zinc compounds:

Mobility : Not applicable

Zinc compounds:

Mobility : No data available

2-(2-Butoxyethoxy) ethanol:

Mobility : QSAR, Predicted distribution to environmental compartments,

Water

Triisodecyl phosphite:

Mobility : QSAR, Predicted distribution to environmental compartments,

Soil, Sediment

Phenol:

Mobility : Predicted distribution to environmental compartments, Water

Triphenyl phosphite:

Mobility : QSAR, Predicted distribution to environmental compartments,

Sediment, Soil

12.5 Results of PBT and vPvB assessment

Components:

Isodecyl diphenyl phosphite:

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

Barium compounds:

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

Distillates (petroleum), hydrotreated light:

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

White mineral oil (petroleum):

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

Barium compounds:

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

Diisodecyl phenyl phosphite:

45533 37/41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

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

Dibenzoyl methane:

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

2,6-di-tert-butyl-p-cresol:

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

Barium compounds:

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

Zinc compounds:

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

Zinc compounds :

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

2-(2-Butoxyethoxy) ethanol:

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

Triisodecyl phosphite:

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

Phenol:

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

Triphenyl phosphite:

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

12.6 Other adverse effects

Isodecyl diphenyl phosphite:

Further information : No information available.

Barium compounds :

Further information : No information available.

Distillates (petroleum), hydrotreated light:

Further information : No information available.

White mineral oil (petroleum):

Further information : No information available.

Barium compounds:

Further information : No information available.

Diisodecyl phenyl phosphite:

Further information : No information available.

Dibenzoyl methane:

Further information : No information available.

2,6-di-tert-butyl-p-cresol:

Further information : No information available.

Barium compounds:

Further information : No information available.

Zinc compounds:

Further information : No information available.

45533 38**/**41

BAERLOCHER

B 2684

Version 1.0 Revision Date 16.06.2017

Zinc compounds:

Further information : No information available.

2-(2-Butoxyethoxy) ethanol:

Further information : No information available.

Triisodecyl phosphite:

Further information : No information available.

Phenol:

Further information : No information available.

Triphenyl phosphite:

Further information : No information available.

13. Disposal considerations

13.1 Waste treatment methods

Product/packaging : Dispose of contents/container in accordance with

local/regional/national/international/regulations.

14. Transport information

14.1 UN number

DOT

Not dangerous goods

14.2 Proper shipping name

DOT

Not dangerous goods

14.3 Transport hazard class

DOT

Not dangerous goods

14.4 Packing group

DOT

Not dangerous goods

14.5 Environmental hazards

DOT

Not dangerous goods

14.6 Special precautions for user

See this safety data sheet chapter 6. - 8.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

45533 39**/**41



B 2684

Version 1.0 Revision Date 16.06.2017

Remarks : Not applicable

15. Regulatory information

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

Section 313 Supplier Notification (USA)

This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372:

Component	CAS/313 Category Code	Wt (%)
Barium compounds	N040	21.1
Zinc compounds	N982	7.9
Glycol ethers	N230	1.9
Phenol		0.13 - 1.39

National Legislation:

Registration Status:

United States TSCA : listed

15.2 Chemical safety assessment

This information is not available.

16. Other information

Date of Preparation or last change: 16.06.2017

HMIS Rating (USA)

Health : 2
Flammability : 1
Reactivity : 1
Personal Protection : G

45533 40**/**41



B 2684

Version 1.0	Revision Date 16.06.2017
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H341	Suspected of causing genetic defects.
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.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

45533 41**/**41