SECTION 1. IDENTIFICATION

Product identifier

Trade name	:	**B 116 B**

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

Use of the Sub-stance/Mixture	:	Manufacture of plastics products Polymer additive Stabilizer
Recommended restrictions on use	:	None known.

Details of the supplier of the safety data sheet

Company	:	Baerlocher Production USA LLC 5890 Highland Ridge Drive Cincinnati, OH 45232
Telephone	:	Cell Phone: 1-513-604-2327
E-mail address	:	Hotline.PS@baerlocher.com
Responsible/issuing person	:	Product Safety Department

Emergency telephone number (0 - 24 h)

CHEMTREC: 1-800-424-9300 (inside U.S.) / 1-703 527-3887 (outside U.S.) Collect calls are accepted

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Skin irritation	:	Category 2
Serious eye damage	:	Category 1
Skin sensitization	:	Category 1
Reproductive toxicity	:	Category 2
Specific target organ toxicity - single exposure	:	Category 3 (Central nervous system)
Specific target organ toxicity - repeated exposure	:	Category 2 (Nervous system)
Aspiration hazard	:	Category 1

GHS label elements

Hazard pictograms :

Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H361d Suspected of damaging the unborn child.
H373 May cause damage to organs (Nervous system) through prolonged or repeated exposure.

Precautionary statements :

Prevention:

P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.
P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P331 Do NOT induce vomiting.
P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Combustible material

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : Mixture
Contains organic solvents.

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated light	64742-47-8	>= 25*
Isodecyl diphenyl phosphite	26544-23-0	>= 25*
Zinc Compounds*	Trade Secret	< 20*
Barium Compounds*	Trade Secret	< 20*
Barium Compounds*	Trade Secret	< 20*

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

SECTION 4. 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.
In case of eye contact : Rinse immediately with plenty of water, also under the eyelids.
If swallowed : Call a physician immediately.
Show this safety data sheet to the doctor in attendance.
Most important symptoms and effects, both acute and delayed : No information available.
Notes to physician : Treat symptomatically.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Water spray
Foam
Carbon dioxide (CO2)
Dry chemical
Sand
Unsuitable extinguishing media : High volume water jet
Specific hazards during fire-fighting : Smoke and fumes, toxic.

Further information	:	Release of Phenol by hydrolysis.
Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Remove all sources of ignition. Ensure adequate ventilation. Avoid contact with skin and eyes. Use personal protective equipment.
Environmental precautions	:	Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration.
Methods and materials for containment and 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.

SECTION 7. HANDLING AND STORAGE

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.
Conditions for safe storage	:	Store at room temperature in the original container. Keep container tightly closed in a dry and well-ventilated place.
Technical measures/Precautions	:	Handle in accordance with good industrial hygiene and safety practice.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Barium, soluble compounds (as Ba)	Not Assigned	air 8 h	0.5 mg/m3 (Barium)	ACGIH
		PEL	0.5 mg/m3 (Barium)	OSHA
		TWA	0.5 mg/m3 (Barium)	NIOSH REL
Distillates (petroleum), hydrotreated light	64742-47-8	air 8 h	200 mg/m3	ACGIH
		TWA	100 ppm	NIOSH REL
		PEL	100 ppm 400 mg/m3	Z1A

Engineering measures	:	Local exhaust

Personal protective equipment

Respiratory protection	:	Up to 0.5 mg/m3: (APF=10) Any air-purifying respirator with a high-efficiency particulate filter/(APF=10) Any air-supplied respirator

Hand protection Material	:	protective gloves acc. to EN 374, e.g. neoprene
Glove thickness	:	>= 0.7 mm
Eye protection	:	Safety glasses
Skin and body protection	:	Long sleeved clothing Rubber apron
Protective measures	:	antistatic shoes
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. Handle in accordance with good industrial hygiene and safety practice. Regular cleaning of equipment, work area and clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	liquid
Color	:	yellowish
Odor	:	characteristic
Odor Threshold	:	No data available
pH	:	No data available
Melting point/range	:	No data available
Boiling point/boiling range	:	235 - 282 °C Value refers to the solvent.
Flash point	:	> 100 °C
Evaporation rate	:	No data available
Flammability (liquids)	:	Combustible Liquid
Upper explosion limit	:	5.5 %(V) Value refers to the solvent.
Lower explosion limit	:	0.6 %(V) Value refers to the solvent.
Vapor pressure	:	< 0.1 hPa (20 °C) Value refers to the solvent.
Relative vapor density	:	No data available
Relative density	:	No data available
Density	:	0.8 - 1.0 g/cm3
Solubility(ies)		
Water solubility	:	slightly soluble
Partition coefficient: n-	:	No data available

octanol/water
Auto-ignition temperature : > 220 °C
Value refers to the solvent.

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : No data available

Refractive index : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Stable at normal ambient temperature and pressure.
Chemical stability : No decomposition if stored normally.
Possibility of hazardous reactions : Vapors may form explosive mixture with air.
Conditions to avoid : Keep away from heat and sources of ignition.
Incompatible materials : Strong oxidizing agents
Hazardous decomposition products : No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: 3,467 mg/kg
Method: Calculation method

Acute inhalation toxicity : Acute toxicity estimate: 43.53 mg/l
Exposure time: 4 h
Test atmosphere: vapor
Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

Distillates (petroleum), hydrotreated light:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 420
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity : LC50 (Rat): > 5.28 mg/l
Exposure time: 4 h
Test atmosphere: vapor

Method: OECD Test Guideline 403
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

Acute oral toxicity : LD50 (Rat): 3,840 mg/kg
Method: standardized international/national methodology
Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity : LC50 (Rat): > 8.4 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Method: standardized international/national methodology
Remarks: Based on available data, the classification criteria are not met.

Acute inhalation toxicity : Remarks: Not classified due to lack of data.

Acute dermal toxicity : Remarks: Read-across (Analogy)

LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Remarks: Based on available data, the classification criteria are not met.

Barium Compounds:

Acute oral toxicity : Remarks: Classification
Labelling according to EC Directives
Regulation (EC) No 1272/2008, Annex VI, Table 3
Acute oral toxicity

Category 4

Acute inhalation toxicity : Remarks: Classification
Labelling according to EC Directives
Regulation (EC) No 1272/2008, Annex VI, Table 3
Acute inhalation toxicity
Category 4

Acute dermal toxicity : Remarks: Read-across (Analogy)

LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Barium Compounds:

Acute oral toxicity : LD50 (Rat): > 300 mg/kg
Method: OECD Test Guideline 423
GLP: yes

LD50 (Rat): < 2,000 mg/kg
Method: OECD Test Guideline 423
GLP: yes

Acute inhalation toxicity : Remarks: Classification
Labelling according to EC Directives
Regulation (EC) No 1272/2008, Annex VI, Table 3
Acute inhalation toxicity
Category 4

Acute dermal toxicity : Remarks: Read-across (Analogy)

LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Skin corrosion/irritation

Components:

Distillates (petroleum), hydrotreated light:

Species: Rabbit
Method: OECD Test Guideline 404
Result: irritating
GLP: yes

Isodecyl diphenyl phosphite:

Species: Rabbit
Method: standardized international/national methodology

Result: slight irritation
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:

Remarks: Read-across (Analogy)

Species: Rabbit
Method: OECD Test Guideline 404
Result: slight irritation
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Barium Compounds:

Species: Rabbit
Method: OECD Test Guideline 404
Result: not irritating
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Barium Compounds:

Species: reconstructed human epidermis (RhE)
Method: OECD Test Guideline 439
Result: not irritating
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Components:

Distillates (petroleum), hydrotreated light:

Species: Rabbit
Result: not irritating
Method: standardized international/national methodology
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

Species: Rabbit
Result: slight irritation
Method: standardized international/national methodology
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:

Remarks: Read-across (Analogy)

Species: Rabbit

Result: irritating
Method: OECD Test Guideline 405
GLP: yes

Barium Compounds:

Species: in vitro assay
Result: Causes serious eye damage.
Method: OECD Test Guideline 437
GLP: yes

Barium Compounds:

Species: Rabbit
Result: Irritating to eyes.
Method: OECD Test Guideline 405
GLP: yes

Respiratory or skin sensitization

Components:

Distillates (petroleum), hydrotreated light:

Remarks: Skin sensitization

Test Type: Buehler Test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitization.
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Remarks: Respiratory sensitization

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

Isodecyl diphenyl phosphite:

Remarks: Skin sensitization

Test Type: Maximization Test
Species: Guinea pig
Method: standardized international/national methodology
Result: Sensitizing

Remarks: Respiratory sensitization
Based on available data, the classification criteria are not met.

Zinc Compounds:

Remarks: Skin sensitization

Remarks: Read-across (Analogy)
Based on available data, the classification criteria are not met.

Remarks: Respiratory sensitization

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

Barium Compounds:
Remarks: Skin sensitization
Read-across (Analogy)

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

Remarks: Respiratory sensitization

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

Barium Compounds:
Remarks: Skin sensitization

Remarks: Read-across (Analogy)

Test Type: LLNA
Species: Mouse
Method: OECD Test Guideline 429
Result: Not a skin sensitizer.
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Remarks: Respiratory sensitization
Not classified due to lack of data.

Germ cell mutagenicity

Components:

Distillates (petroleum), hydrotreated light:

Genotoxicity in vitro	:	Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay) Species: Bacteria Method: OECD Test Guideline 471 Result: negative
	:	Test Type: In vitro gene mutation study in mammalian cells Species: mouse lymphoma cells Method: OECD Test Guideline 476 Result: negative GLP: yes Remarks: Based on available data, the classification criteria are not met.
Genotoxicity in vivo	:	Test Type: Genotoxicity in vivo Species: Rat Application Route: intraperitoneally

Method: OECD Test Guideline 478
Result: negative

Test Type: Genotoxicity in vivo
Species: Mouse
Application Route: intraperitoneally
Method: OECD Test Guideline 478
Result: negative

Test Type: Genotoxicity in vivo
Species: Mouse
Application Route: Inhalation
Method: OECD Test Guideline 478
Result: negative

Test Type: Mutagenicity (in vivo mammalian bone-marrow cytogenetic test, chromosomal analysis)
Species: Rat
Application Route: intraperitoneally
Method: OECD Test Guideline 475
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

Genotoxicity in vitro : Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Species: Bacteria
Method: OECD Test Guideline 471
Result: negative
GLP: yes

: Test Type: DNA repair-suspension assay
Species: Bacteria
Method: standardized international/national methodology
Result: negative
GLP: yes

: Remarks: Read-across (Analogy)

: Test Type: Micronucleus test
Species: Human lymphocytes
Method: OECD Test Guideline 487
Result: negative
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Genotoxicity in vivo : Test Type: In vivo micronucleus test
Species: Mouse
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:

Genotoxicity in vitro : Remarks: Read-across (Analogy)

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

Barium Compounds:

Genotoxicity in vitro : Remarks: Read-across (Analogy)

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

Barium Compounds:

Genotoxicity in vitro : Remarks: Read-across (Analogy)

: Test Type: Mutagenicity (Salmonella typhimurium - reverse mutation assay)
Species: Bacteria
Method: OECD Test Guideline 471
Result: negative
GLP: yes

: Remarks: Read-across (Analogy)

: Test Type: In vitro gene mutation study in mammalian cells
Species: mouse lymphoma cells
Method: OECD Test Guideline 476
Result: negative
GLP: yes

: Remarks: Read-across (Analogy)

: Test Type: Mutagenicity (in vitro mammalian cytogenetic test)
Species: Chinese hamster ovary cells
Method: OECD Test Guideline 473
Result: negative
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Genotoxicity in vivo : Remarks: Read-across (Analogy)

Test Type: In vivo micronucleus test
Species: Rat
Application Route: Oral
Method: OECD Test Guideline 474
Result: negative

GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Remarks: This product contains no known or suspected carcinogens listed by IARC, NTP or OSHA at or above reportable quantities.

Components:

Distillates (petroleum), hydrotreated light:

Species: Mouse
Application Route: Skin contact
Method: OECD Test Guideline 451
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

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

Zinc Compounds:

Remarks: Read-across (Analogy)

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

Barium Compounds:

Remarks: Not classified due to lack of data.

Barium Compounds:

Remarks: Not classified due to lack of data.

Reproductive toxicity

Components:

Distillates (petroleum), hydrotreated light:

Effects on fertility :

Test Type: One-generation reproduction toxicity test
Species: Rat
Application Route: Oral

Test Type: Screening for reproductive/developmental toxicity
Species: Rat
Application Route: Skin contact
NOAEL: > 494 mg/kg,

Method: OECD Test Guideline 421
Remarks: Based on available data, the classification criteria are not met.

Effects on fetal development : Species: Rat
Application Route: Inhalation
Method: OECD Test Guideline 414
Species: Rat
Application Route: Oral
Method: OECD Test Guideline 414
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

Effects on fertility :

Remarks: Read-across (Analogy)

Test Type: Screening for reproductive/developmental toxicity
Species: Rat
Application Route: Oral
NOAEL: 15 mg/kg,
Method: OECD Test Guideline 422
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Effects on fetal development : Remarks: Read-across (Analogy)
Species: Rat
Application Route: Oral
15 mg/kg
Method: OECD Test Guideline 422
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:

Effects on fertility :

Remarks: Read-across (Analogy)

Remarks: Suspected of damaging the unborn child.

Barium Compounds:

Effects on fertility :

Remarks: Not classified due to lack of data.

Barium Compounds:
Effects on fertility :

Remarks: Read-across (Analogy)

Test Type: Screening for reproductive/developmental toxicity
Species: Rat
NOAEL:
F1: 1,000 mg/kg,
Method: OECD Test Guideline 422
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

STOT - single exposure

Components:

Distillates (petroleum), hydrotreated light:
Assessment: May cause drowsiness or dizziness.

Isodecyl diphenyl phosphite:
Remarks: Based on available data, the classification criteria are not met.

Zinc Compounds:
Remarks: Based on available data, the classification criteria are not met.

Barium Compounds:
Remarks: Not classified due to lack of data.

Barium Compounds:
Remarks: Based on available data, the classification criteria are not met.

Repeated dose toxicity

Components:

Distillates (petroleum), hydrotreated light:
Species: Rat
Application Route: Oral
Exposure time: <= 90 d
Remarks: Based on available data, the classification criteria are not met.

Species: rat / mouse
Application Route: Inhalation
Exposure time: 90 d

Method: OECD Test Guideline 413
Remarks: Based on available data, the classification criteria are not met.

Species: Rat
Application Route: Dermal
Exposure time: 28 d
Method: OECD Test Guideline 410
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Isodecyl diphenyl phosphite:

Remarks: Read-across (Analogy)

Species: Rat
NOAEL: 15 mg/kg
Application Route: Oral
Exposure time: 16 w
Method: OECD Test Guideline 422
GLP: yes
Remarks: May cause damage to organs through prolonged or repeated exposure.

Zinc Compounds:

Remarks: Read-across (Analogy)
Based on available data, the classification criteria are not met.

Barium Compounds:

Remarks: Not classified due to lack of data.

Barium Compounds:

Remarks: Read-across (Analogy)

Species: Rat
NOAEL: 100 mg/kg
Method: OECD Test Guideline 422
GLP: yes
Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Components:

Distillates (petroleum), hydrotreated light:

May be fatal if swallowed and enters airways.

Isodecyl diphenyl phosphite:

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

Zinc Compounds:

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

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

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Distillates (petroleum), hydrotreated light:

Toxicity to fish	:	LL50 (Oncorhynchus mykiss (rainbow trout)): 2 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203 GLP: yes Remarks: Value refered to the Water accumulated fraction (WAF).
Toxicity to daphnia and other aquatic invertebrates	:	EL50 (Daphnia magna (Water flea)): 1.4 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes Remarks: Value refered to the Water accumulated fraction (WAF).
Toxicity to algae	:	EL50 (Pseudokirchneriella subcapitata (green algae)): 1 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes Remarks: Value refered to the Water accumulated fraction (WAF).
Toxicity to fish (Chronic toxicity)	:	NOEL (Oncorhynchus mykiss (rainbow trout)): 0.098 mg/l Exposure time: 28 d Method: QSAR GLP: no
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	:	NOEL (Daphnia magna (Water flea)): 0.48 mg/l Exposure time: 21 d Test Type: semi-static test Method: OECD Test Guideline 211 GLP: yes Remarks: Value refered to the Water accumulated fraction (WAF).

Toxicity to bacteria	:	LL50 (Tetrahymena pyriformis): 677.9 mg/l Exposure time: 72 h Method: QSAR GLP: no

Isodecyl diphenyl phosphite:

Toxicity to fish	:	Remarks: study technically not feasible
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: study technically not feasible
Toxicity to algae	:	Remarks: study technically not feasible
Toxicity to bacteria	:	Remarks: study technically not feasible

Ecotoxicology Assessment

Acute aquatic toxicity	:	Based on available data, the classification criteria are not met.
Chronic aquatic toxicity	:	Toxic to aquatic life with long lasting effects., Upon contact with water PDDP readily hydrolyses into a mixture of phosphorous acid, isodecanol and phenol in an approximate molar ratio of 1:2:1., Ecological data therefore refers only to the effects of the decomposition products.

Zinc Compounds:

Toxicity to fish	:	Remarks: Read-across (Analogy) LC50 (Cyprinus carpio (Carp)): 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: Read-across (Analogy) EC50 (Daphnia magna (Water flea)): 5 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae	:	Remarks: Read-across (Analogy) EC50 (Pseudokirchneriella subcapitata (green algae)): 2.72 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201

GLP: yes

Toxicity to fish (Chronic toxicity) : Remarks: Read-across (Analogy)

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

Remarks: Read-across (Analogy)

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

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Read-across (Analogy)

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

Remarks: Read-across (Analogy)

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

Toxicity to bacteria : IC50 (activated sludge): > 100 mg/l
Exposure time: 3 h
Test Type: static test
Method: OECD Test Guideline 209
GLP:

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.

Barium Compounds:

Toxicity to fish : Remarks: Read-across (Analogy)

LC50 (Danio rerio (zebra fish)): > 97.5 mg Ba/L
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : Remarks: Read-across (Analogy)

LC50 (Daphnia magna (Water flea)): 14.5 mg/l
Exposure time: 48 h
Test Type: static test
Method: standardized international/national methodology

Toxicity to algae : Remarks: Read-across (Analogy)

EC50 (Pseudokirchneriella subcapitata (algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: yes

Toxicity to fish (Chronic toxicity) : Remarks: Read-across (Analogy)

Chronic Toxicity Value (Fish): 1.6 mg/l
Exposure time: 30 d
Method: QSAR

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Read-across (Analogy)

Chronic Toxicity Value (Daphnia magna (Water flea)): 1.7 mg/l
Method: QSAR

Toxicity to bacteria : GLP:
Remarks: Read-across (Analogy)

EC50 (Escherichia coli): 52.5 mg/l
Method: QSAR
GLP:

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:

Toxicity to fish : Remarks: Read-across (Analogy)

LC50 (Oryzias latipes): 82 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203
GLP: yes

Toxicity to daphnia and other aquatic invertebrates : Remarks: Read-across (Analogy)

EC50 (Daphnia magna (Water flea)): 75 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202
GLP: yes

Toxicity to algae : Remarks: Read-across (Analogy)

EC50 (Selenastrum capricornutum (green algae)): 10 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: Read-across (Analogy)

NOEC (Daphnia magna (Water flea)): 9.7 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
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.

Persistence and degradability

Components:

Distillates (petroleum), hydrotreated light:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 61 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

Isodecyl diphenyl phosphite:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 84 %
Exposure time: 28 d
Method: OECD Test Guideline 301D

Zinc Compounds:

Biodegradability : Remarks: Read-across (Analogy)

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

Barium Compounds:

Biodegradability : Remarks: Read-across (Analogy)

aerobic
Inoculum: activated sludge
Result: Not readily biodegradable.
Biodegradation: 11 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
Remarks: Organic acids

Remarks: The methods for determining biodegradability are not applicable to inorganic substances.

Barium Compounds:

Biodegradability : Remarks: Read-across (Analogy)

aerobic
Inoculum: activated sludge
Result: Readily biodegradable.
Biodegradation: 92 %
Exposure time: 28 d
Method: OECD Test Guideline 301C

Bioaccumulative potential

Components:

Distillates (petroleum), hydrotreated light:

Bioaccumulation : Remarks: No data available

Isodecyl diphenyl phosphite:

Bioaccumulation : Bioconcentration factor (BCF): 606.5
Method: QSAR

Zinc Compounds:

Bioaccumulation : Remarks: Read-across (Analogy)
This substance is not considered to be bioaccumulating.

Partition coefficient: n-octanol/water : log Pow: > 5.7
Method: OECD Test Guideline 107
GLP: no

Barium Compounds:

Bioaccumulation : Remarks: Read-across (Analogy)

Remarks: This substance is not considered to be bioaccumulating.

Barium Compounds:

Bioaccumulation : Remarks: No data available

Mobility in soil

Components:

Distillates (petroleum), hydrotreated light:

Mobility : Method: QSAR
Remarks: Predicted distribution to environmental compartments
Air

Isodecyl diphenyl phosphite:

Mobility : Method: QSAR
Remarks: Predicted distribution to environmental compartments
Sediment
Soil

Zinc Compounds:

Mobility : Remarks: Not applicable

Barium Compounds:

Mobility : Remarks: No data available

Barium Compounds:

Mobility : Remarks: No data available

Other adverse effects

Components:

Distillates (petroleum), hydrotreated light:

Results of PBT and vPvB assessment : Based on available data, the classification criteria are not met.

Endocrine disrupting potential : No information available.

Isodecyl diphenyl phosphite:

Results of PBT and vPvB assessment : Based on available data, the classification criteria are not met.

Endocrine disrupting potential : No information available.

Zinc Compounds:

Results of PBT and vPvB assessment : Based on available data, the classification criteria are not met.

Endocrine disrupting poten- : No information available.

tial

Barium Compounds:

Results of PBT and vPvB assessment	:	Based on available data, the classification criteria are not met.
Endocrine disrupting potential	:	No information available.

Barium Compounds:

Environmental fate and pathways	:	No data available
Results of PBT and vPvB assessment	:	Based on available data, the classification criteria are not met.
Endocrine disrupting potential	:	No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Consult an expert on the disposal of recovered material. Ensure disposal in compliance with government requirements and ensure conformity to local disposal regulations. Dispose in accordance with local, state and federal regulations.
Contaminated packaging	:	Empty containers must be handled with care due to product residue.

SECTION 14. TRANSPORT INFORMATION

National Regulations

DOT
Not regulated as a dangerous good

International Regulations

IATA-DGR

UN/ID No.	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl (isodecyl) phosphite, solution)
Class	:	9
Packing group	:	III
Labels	:	Miscellaneous
Packing instruction (cargo aircraft)	:	964
Packing instruction (passenger aircraft)	:	964

IMDG-Code

UN number	:	UN 3082
Proper shipping name	:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Diphenyl (isodecyl) phosphite, solution)

Class	:	9
Packing group	:	III
Labels	:	9
EmS Code	:	F-A, S-F
Marine pollutant	:	yes

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

Not applicable for product as supplied.

SECTION 15. REGULATORY INFORMATION

SARA 313 : 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:

Components	CAS-No.	Wt.
Barium Compounds (N040)	Not Assigned	11.1
Zinc Compounds (N982)	Not Assigned	8.9

The components of this product are reported in the following inventories:

EINECS	listed
TSCA	listed
DSL	listed
AICS	Not listed
ENCS	Not listed
ECL	Not listed
PICCS	Not listed
CHINA	listed

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification

System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Further information

Revision Date : 08/09/2021

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.

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