

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

SECTION 1. IDENTIFICATION

Product name : SumTech SG 460
Article-No. : 320413
Other means of identification : No data available

Manufacturer or supplier's details

Company name of supplier : Klüber Lubrication NA LP
9010 County Road 2120
Tyler, Texas 75707
USA
Phone: +1 903 534-8021
Fax: +1 903 581-4376

32 Industrial Drive
Londonderry, NH 03053
USA
Phone: +1 603 647-4104
Fax: +1 603 647-4106

E-mail address of person responsible for the SDS : mcm@us.kluber.com
Material Compliance Management

Emergency telephone number : +1-517-545-7070 NCEC

Recommended use of the chemical and restrictions on use

Recommended use : Grease
Restrictions on use : Restricted to professional users.



SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the Hazardous Products Regulations

Eye irritation : Category 2A

Reproductive toxicity : **Category 2**

GHS label elements

Hazard pictograms :  

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Signal word : Warning

Hazard statements : Causes serious eye irritation.
Suspected of damaging fertility.

Precautionary statements : **Prevention:**
Obtain special instructions before use.
Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
IF exposed or concerned: Get medical advice/ attention.
If eye irritation persists: Get medical advice/ attention.

Storage:
Store locked up.

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Synthetic hydrocarbon oil
special lithium soap

Components

Chemical name	Common Name/Synonym	CAS-No.	Concentration (% w/w)
lithium 12-hydroxystearate	Octadecanoic acid, 12-hydroxy-, mono-lithium salt	7620-77-1	Trade secret** (>= 10 - < 30 *)
dilithium azelate	Nonanedioic acid, dilithium salt	38900-29-7	Trade secret** (>= 1 - < 5 *)
Distillates (petroleum), hydrotreated light paraffinic	Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	Trade secret** (>= 1 - < 5 *)
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	Benzenamine, N-phenyl-, reaction products with 2,4,4-	68411-46-1	Trade secret** (>= 1 - < 5 *)

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

	trimethylpen- tene		
Hydrocarbon waxes (petroleum), oxidized, Me esters	Hydrocarbon waxes (petroleum), oxidized, Me esters	68602-85-7	Trade secret** ($\geq 1 - < 5$ *)
zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)	Zinc, bis[O,O-bis(2-ethylhexyl) phosphorodithioato-S,S']-, (β -4)-	4259-15-8	Trade secret** ($\geq 1 - < 5$ *)

* Actual concentration or concentration range is withheld as a trade secret

** See Section 15 for HMIRA information.

SECTION 4. FIRST AID MEASURES

- If inhaled : Obtain medical attention.
Remove person to fresh air. If signs/symptoms continue, get medical attention.
Keep patient warm and at rest.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.
Wash off immediately with soap and plenty of water.
Get medical attention immediately if irritation develops and persists.
Wash clothing before reuse.
Thoroughly clean shoes before reuse.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.
Seek medical advice.
- If swallowed : Move the victim to fresh air.
If unconscious, place in recovery position and seek medical advice.
Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : No information available.
None known.
- Notes to physician : No information available.

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)
Sulphur oxides
Oxides of phosphorus
Metal oxides
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Exposure to decomposition products may be a hazard to health.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use the indicated respiratory protection if the occupational exposure limit is exceeded and/or in case of product release (dust).
Do not breathe vapours, aerosols.
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
Local authorities should be advised if significant spillages cannot be contained.
- Methods and materials for containment and cleaning up : Clean up promptly by sweeping or vacuum.
Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Wash hands and face before breaks and immediately after handling the product.
Do not get in eyes or mouth or on skin.

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Do not get on skin or clothing.
Do not ingest.
Do not repack.
These safety instructions also apply to empty packaging which may still contain product residues.
Keep container closed when not in use.

Conditions for safe storage : Store in original container.
Keep container closed when not in use.
Keep in a dry, cool and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Store in accordance with the particular national regulations.
Keep in properly labelled containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
lithium 12-hydroxystearate	7620-77-1	TWA	10 mg/m3	CA AB OEL (2009-04-30)
		TWAEV	10 mg/m3	CA QC OEL (2020-03-11)
		TWA (Inhalable)	10 mg/m3	CA BC OEL (2021-01-04)
		TWA (Respirable)	3 mg/m3	CA BC OEL (2021-01-04)
		TWA (Inhalable particulate matter)	10 mg/m3	ACGIH (2018-03-20)
		TWA (Respirable particulate matter)	3 mg/m3	ACGIH (2018-03-20)
Distillates (petroleum), hydrotreated light paraffinic	64742-55-8	TWA (Mist)	5 mg/m3	CA AB OEL (2009-04-30)
		STEL (Mist)	10 mg/m3	CA AB OEL (2009-04-30)
		TWAEV (Mist)	5 mg/m3	CA QC OEL (2012-11-28)
		STEV (Mist)	10 mg/m3	CA QC OEL (2012-11-28)
		TWA (Mist)	1 mg/m3	CA BC OEL (2012-04-20)
		TWA (Mist)	1 mg/m3	CA BC OEL (2021-01-04)
		TWA (Inhal-	5 mg/m3	ACGIH

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

		able particulate matter)		(2013-03-01)
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Engineering measures : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type P

Hand protection

Material : Nitrile rubber

Break through time : > 10 min

Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Safety glasses with side-shields

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : beige

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable
substance/mixture is non-soluble (in water)

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Not applicable

Evaporation rate : No data available

Flammability (solid, gas) : Combustible Solids

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (20 °C)

Relative vapour density : No data available

Relative density : 0.87 (20 °C)
Reference substance: Water
The value is calculated

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity
Viscosity, dynamic : No data available

Viscosity, kinematic : Not applicable

Explosive properties : Not explosive

Oxidizing properties : No data available

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Sublimation point : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Acute toxicity estimate: > 2,000 mg/kg
Method: Calculation method

Acute inhalation toxicity : Remarks: This information is not available.

Acute dermal toxicity : Remarks: This information is not available.

Components:

lithium 12-hydroxystearate:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): > 3,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

dilithium azelate:

Acute oral toxicity : LD50 (Rat): > 300 mg/kg
Method: OECD Test Guideline 420
GLP: yes

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg
Assessment: The substance or mixture has no acute dermal toxicity

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

Distillates (petroleum), hydrotreated light paraffinic:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist
Method: OECD Test Guideline 403
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: yes

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg
Method: OECD Test Guideline 402
Assessment: The substance or mixture has no acute dermal toxicity

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg
Assessment: The substance or mixture has no acute oral toxicity

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Acute oral toxicity : LD50 (Rat, male): 3,100 mg/kg
Method: OECD Test Guideline 401
GLP: no

Acute dermal toxicity : LD50 (Rabbit, male): > 5,000 mg/kg
Method: OECD Test Guideline 402
GLP: no

Skin corrosion/irritation

Product:

Remarks : This information is not available.

Components:

lithium 12-hydroxystearate:

Assessment : No skin irritation

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

Method : OECD Test Guideline 439
Result : No skin irritation

dilithium azelate:

Assessment : No skin irritation
Result : No skin irritation

Distillates (petroleum), hydrotreated light paraffinic:

Species : Rabbit
Assessment : No skin irritation
Result : No skin irritation
GLP : yes

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Species : human skin
Assessment : No skin irritation
Result : No skin irritation

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Species : Rabbit
Assessment : No skin irritation
Method : OECD Test Guideline 404
Result : No skin irritation
GLP : yes

Serious eye damage/eye irritation

Product:

Remarks : Irritating to eyes.

Components:

lithium 12-hydroxystearate:

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405

dilithium azelate:

Species : Rabbit
Result : No eye irritation

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

Assessment : No eye irritation

Distillates (petroleum), hydrotreated light paraffinic:

Species : Rabbit
Result : No eye irritation
Exposure time : 48 h
Assessment : No eye irritation
Method : OECD Test Guideline 405
GLP : yes

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Rabbit
Result : No eye irritation
Assessment : No eye irritation
Method : OECD Test Guideline 405

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Species : Human
Result : Irritating to eyes.
Assessment : Irritating to eyes.

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Species : Rabbit
Result : Risk of serious damage to eyes.
Assessment : Risk of serious damage to eyes.
Method : OECD Test Guideline 405
GLP : yes

Respiratory or skin sensitisation

Product:

Remarks : This information is not available.

Components:

lithium 12-hydroxystearate:

Exposure routes : Dermal
Species : Mouse
Method : OECD Test Guideline 429
Result : negative

dilithium azelate:

Assessment : Does not cause skin sensitisation.
Result : Does not cause skin sensitisation.

Distillates (petroleum), hydrotreated light paraffinic:

Test Type : Buehler Test

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

Species : Guinea pig
 Assessment : Did not cause sensitisation on laboratory animals.
 Method : OECD Test Guideline 406
 Result : Did not cause sensitisation on laboratory animals.
 GLP : no

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Species : Guinea pig
 Assessment : Did not cause sensitisation on laboratory animals.
 Method : OECD Test Guideline 406
 Result : Did not cause sensitisation on laboratory animals.

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Test Type : Buehler Test
 Species : Guinea pig
 Assessment : Does not cause skin sensitisation.
 Result : Does not cause skin sensitisation.

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Test Type : Maximisation Test
 Species : Guinea pig
 Assessment : Did not cause sensitisation on laboratory animals.
 Method : OECD Test Guideline 406
 Result : Did not cause sensitisation on laboratory animals.
 GLP : yes

Germ cell mutagenicity

Product:

Genotoxicity in vitro : Remarks: No data available

Genotoxicity in vivo : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated light paraffinic:

Germ cell mutagenicity - Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

Remarks : No data available

Components:

Distillates (petroleum), hydrotreated light paraffinic:

Carcinogenicity - Assess- : No evidence of carcinogenicity in animal studies.

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

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Reproductive toxicity

Product:

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

Components:

Distillates (petroleum), hydrotreated light paraffinic:

Reproductive toxicity - Assessment : - Fertility -
No toxicity to reproduction
- Teratogenicity -
No effects on or via lactation

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Reproductive toxicity - Assessment : - Fertility -
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

STOT - single exposure

Components:

dilithium azelate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT - repeated exposure

Components:

dilithium azelate:

Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Product:

Remarks : This information is not available.

Aspiration toxicity

Product:

This information is not available.

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Components:

dilithium azelate:

No aspiration toxicity classification

Distillates (petroleum), hydrotreated light paraffinic:

May be fatal if swallowed and enters airways.

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

No aspiration toxicity classification

Further information

Product:

Remarks : Information given is based on data on the components and the toxicology of similar products.

Components:

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Remarks : Information given is based on data on the components and the toxicology of similar products.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish :
Remarks: No data available

Toxicity to daphnia and other :
aquatic invertebrates :
Remarks: No data available

Toxicity to algae/aquatic :
plants :
Remarks: No data available

Toxicity to microorganisms :
Remarks: No data available

Components:

lithium 12-hydroxystearate:

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 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 : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : EC50 (Pseudokirchneriella subcapitata (green algae)): > 160 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Pseudokirchneriella subcapitata (green algae)): 160 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

dilithium azelate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l
Exposure time: 96 h
Test Type: static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

- Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 4.4 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 : EC50 (Daphnia magna (Water flea)): 75 mg/l
Exposure time: 48 h
Test Type: Immobilization
Method: OECD Test Guideline 202
GLP: yes
- Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): 240 mg/l
Exposure time: 72 h
Test Type: Growth inhibition
Method: OECD Test Guideline 201
GLP: yes
- Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): > 0.8 mg/l
Exposure time: 21 d
Method: OECD Test Guideline 211
GLP: yes
Remarks: Information given is based on data obtained from similar substances.
- Toxicity to microorganisms : EC50 (Pseudomonas putida): 380 mg/l
Exposure time: 16 h
Test Type: static test
GLP: yes

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

Components:

lithium 12-hydroxystearate:

Biodegradability : Primary biodegradation
Inoculum: activated sludge
Result: rapidly biodegradable
Biodegradation: 74.7 %

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

Exposure time: 28 d
Method: OECD Test Guideline 301C

Distillates (petroleum), hydrotreated light paraffinic:

Biodegradability : Result: not rapidly degradable
Biodegradation: 31 %
Exposure time: 28 d

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Biodegradability : aerobic
Inoculum: activated sludge
Result: Not rapidly biodegradable
Biodegradation: 1 %
Exposure time: 28 d
Method: OECD Test Guideline 301B
GLP: yes

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Biodegradability : Result: Not rapidly biodegradable
Biodegradation: < 5 %
Exposure time: 27 d
Method: OECD Test Guideline 301D
GLP: no

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).
This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

Components:

lithium 12-hydroxystearate:

Partition coefficient: n-octanol/water : log Pow: 2.6

dilithium azelate:

Bioaccumulation : Bioconcentration factor (BCF): 3.0

Partition coefficient: n-octanol/water : log Pow: -3.56

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

Distillates (petroleum), hydrotreated light paraffinic:

Partition coefficient: n-octanol/water : Pow: > 6
Remarks: Information given is based on data obtained from similar substances.

Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:

Partition coefficient: n-octanol/water : log Pow: > 5

Hydrocarbon waxes (petroleum), oxidized, Me esters:

Bioaccumulation : Remarks: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Partition coefficient: n-octanol/water : log Pow: 3.59 (22 °C)
pH: 5
Method: OECD Test Guideline 107
GLP: yes

Mobility in soil

Product:

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

Product:

Additional ecological information : No information on ecology is available.

Components:

Distillates (petroleum), hydrotreated light paraffinic:

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate):

Results of PBT and vPvB assessment : Non-classified PBT substance Non-classified vPvB substance

SumTech SG 460

Version 2.0	Revision Date: 2022-08-02	Date of last issue: 2022-03-09 Date of first issue: 2022-03-09	Print Date: 2022-08-03
----------------	------------------------------	---	---------------------------

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.
Do not dispose of with domestic refuse.
Dispose of as hazardous waste in compliance with local and national regulations.
- Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.
Dispose of waste product or used containers according to local regulations.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

National Regulations

TDG

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

NPRI Components : zinc bis[O,O-bis(2-ethylhexyl)] bis(dithiophosphate)

SECTION 16. OTHER INFORMATION

Full text of other abbreviations

- ACGIH : USA. ACGIH Threshold Limit Values (TLV)
CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)

SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
2.0	2022-08-02	Date of first issue: 2022-03-09	2022-08-03

CA BC OEL	:	Canada. British Columbia OEL
CA QC OEL	:	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
ACGIH / TWA	:	8-hour, time-weighted average
CA AB OEL / TWA	:	8-hour Occupational exposure limit
CA AB OEL / STEL	:	15-minute occupational exposure limit
CA BC OEL / TWA	:	8-hour time weighted average
CA QC OEL / TWAEV	:	Time-weighted average exposure value
CA QC OEL / STEV	:	Short-term exposure value

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TECl - Thailand Existing Chemicals 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; WHMIS - Workplace Hazardous Materials Information System

Revision Date : 2022-08-02

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SumTech SG 460

Version	Revision Date:	Date of last issue: 2022-03-09	Print Date:
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