

| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : OKS 410

Chemical nature : lithium soap Mineral oil.

Manufacturer or supplier's details

| Company name of supplier : | : | OKS Spezialschmierstoffe GmbH Ganghoferstr. 47 D-82216 Maisach-Gernlinden Tel.: +49 8142 3051 500 Fax.: +49 8142 3051 599 info@oks-germany.com |
|-------------------------------------------------------|---|---------------------------------------------------------------------------------------------------------------------------------------------------------------|
| E-mail address of person : responsible for the SDS | : | mcm@oks-germany.com Material Compliance Management |
| National contact | : | |
| Emergency telephone number : | : | +86 532 8388 9090 (NRCC, only for hazardous chemicals) +86 21 69225521 |
| Recommended use of the cher | m | - |
| Recommended use : | : | Grease |

Restrictions on use : Restricted to professional users.

2. HAZARDS IDENTIFICATION

Emergency Overview

| Appearance Colour Odour | : | paste black characteristic | | | |
|-----------------------------------------------------------------------------------|---|----------------------------------|--|--|--|
| Causes serious eye irritation. Harmful to aquatic life with long lasting effects. | | | | | |
| GHS Classification | | | | | |
| Eye irritation | : | Category 2A | | | |
| Short-term (acute) aquatic hazard | : | Category 3 | | | |





| ersion 4 | Revision Date: 2023-07-17 | Date of last issue: 2023-02-09 Date of first issue: 2014-05-21 Print Date: 2023-07-17 |
|--------------|-------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Long haza | g-term (chronic) aq ırd | uatic : Category 3 |
| GHS | label elements | |
| Haza | ard pictograms | |
| Sign | al word | : Warning |
| Haza | ard statements | : H319 Causes serious eye irritation. H412 Harmful to aquatic life with long lasting effects. |
| Prec | autionary stateme | nts : Prevention: P264 Wash skin thoroughly after handling. P273 Avoid release to the environment. P280 Wear eye protection/ face protection. |
| | | Response: P305 + P351 + P338 IF IN EYES: Rinse cautiously with war for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313 If eye irritation persists: Get medical advice/ attention. |
| | | Disposal: |
| | | P501 Dispose of contents/containers according the local government requirements. |
| - | sical and chemica classified based or | al hazards n available information. |
| Heal | th hazards | |
| Caus | ses serious eye irr | itation. |
| | ronmental hazar nful to aquatic life. | ds Harmful to aquatic life with long lasting effects. |
| | er hazards which e known. | do not result in classification |

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components





Version 2.4

Revision Date: 2023-07-17

Date: Date of last issue: 2023-02-09 Date of first issue: 2014-05-21 Print Date: 2023-07-17

| Chemical name | CAS-No. | Concentration (% w/w) |
|------------------------------------------------|------------|-----------------------|
| zinc bis[O,O-bis(2-ethylhexyl)] | 4259-15-8 | >= 3 -< 10 |
| bis(dithiophosphate) | | |
| Benzenamine, N-phenyl-, reaction products | 68411-46-1 | >= 0.25 -< 1 |
| with 2,4,4-trimethylpentene | | |
| Benzenesulfonic acid, di-C10-18-alkyl derivs., | 93820-57-6 | >= 0.1 -< 1 |
| calcium salts | | |

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. Get medical attention immediately if irritation develops and persists. Wash clothing before reuse. Thoroughly clean shoes before reuse. Wash off immediately with plenty of water. |
| 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. Obtain medical attention. 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. |

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or





| Ver 2.4 | sion | Revision Date: 2023-07-17 | | last issue: 2023-02-09 first issue: 2014-05-21 Print Date: 2023-07-17 |
|------------|---------------|-----------------------------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | carbon dioxide. |
| | Unsu medi | itable extinguishin a | g : | High volume water jet |
| | Haza produ | rdous combustion ucts | : | Carbon oxides Sulphur oxides Oxides of phosphorus Metal oxides |
| | Spec meth | ific extinguishing ods | : | Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. |
| | | ial protective equip efighters | oment : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. Exposure to decomposition products may be a hazard to health. |

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 | : | Do not allow contact with soil, surface or ground water. If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up | : | Clean up promptly by sweeping or vacuum. Keep in suitable, closed containers for disposal. |

7. HANDLING AND STORAGE

Handling

| 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. Do not get on skin or clothing. |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|





| Version 2.4 | Revision Date: 2023-07-17 | | ast issue: 2023-02-09 irst issue: 2014-05-21 Print Date: 2023-07-17 |
|-------------------------------|---------------------------|--------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | 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. |
| Avo | idance of contact | : | No materials to be especially mentioned. |
| Stor | rage | | |
| Conditions for safe storage : | | rage : | 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. |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|-----------------------------------------------------------|------------|----------------------------------------------|---------------------------------------------------------|------------------------|
| Distillates (petroleum), hydrotreated heavy paraffinic | 64742-54-7 | TWA (Inhalable particulate matter) | 5 mg/m3 | ACGIH (2013-03-01) |
| Residual oils (petroleum), hydrotreated | 64742-57-0 | TWA (Inhalable particulate matter) | 5 mg/m3 | ACGIH (2013-03-01) |
| Distillates (petroleum), hydrotreated heavy naphthenic | 64742-52-5 | TWA (Inhalable particulate matter) | 5 mg/m3 | ACGIH (2013-03-01) |
| lithium 12-hydroxystearate | 7620-77-1 | TWA (Inhalable particulate matter) | 10 mg/m3 | ACGIH (2018-03-20) |
| | | TWA (Respirable particulate matter) | 3 mg/m3 | ACGIH (2018-03-20) |
| molybdenum disulphide | 1317-33-5 | PC-TWA | 6 mg/m3 (Molybdenum) | CN OEL (2019-08-27) |
| | | TWA | 10 mg/m3 | ACGIH |





| Version 2.4 | Revision Date: 2023-07-17 | Date of last issue: 2023-02-09 Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |
|----------------|---------------------------|-------------------------------------------------------------------|------------------------|
| | | | |

| | | | (Inhalable particulate matter) TWA (Respirable particulate matter) | (Molybdenum) 3 mg/m3 (Molybdenum) | (2019-03-05) ACGIH (2019-03-05) |
|-----------------------------------------------------------------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|-----------------------------------------|---------------------------------------|
| Engineering measures | : | Handle only in appropriate ex | a place equipp | ed with local exhaust | (or other |
| Personal protective equipm | nent | | | | |
| Respiratory protection | : | Not required; | except in case o | f aerosol formation. | |
| Filter type | : | Filter type P | Filter type P | | |
| Eye/face protection | : | Safety glasses | 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. | | | |
| Hand protection Material Break through time Protective index | : | Nitrile rubber > 10 min 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. | | | |
| 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, ha handling. | inds and any ex | posed skin thoroughl | y after |

9. PHYSICAL AND CHEMICAL PROPERTIES

| Appearance | : | paste |
|------------|---|----------------|
| Colour | : | black |
| Odour | : | characteristic |





| Versi 2.4 | ion | | | | st issue: 2023-02-09 st issue: 2014-05-21 Print Date: 2023-07-17 |
|--------------|---------|------------------------------------------|-------|---|-----------------------------------------------------------------------|
| | | | | | |
| (| Odou | r Threshold | | : | No data available |
| I | рН | | | : | Not applicable substance/mixture is non-soluble (in water) |
| I | Meltir | ig point/range | | : | No data available |
| I | Boilin | g point/boiling rang | е | : | No data available |
| I | Flash | point | | : | Not applicable |
| I | Evapo | oration rate | | : | No data available |
| I | Flamr | nability (solid, gas) | | : | Combustible Solids |
| : | Self-ię | gnition | | : | No data available |
| | | r explosion limit / U nability limit | pper | : | No data available |
| | | r explosion limit / Lo nability limit | ower | : | No data available |
| , | Vapo | ur pressure | | : | < 0.001 hPa (20 °C) |
| ļ | Relati | ve vapour density | | : | No data available |
| | Relati | ve density | | : | 0.92 (20 °C) Reference substance: Water The value is calculated |
| I | Densi | ty | | : | 0.92 g/cm3 (20 °C) |
| I | Bulk d | density | | : | No data available |
| : | | ility(ies) ater solubility | | : | insoluble |
| | Sc | lubility in other solv | /ents | : | No data available |
| | | on coefficient: n- ol/water | | : | No data available |
| | Auto-i | ignition temperature | Э | : | No data available |
| l | Deco | mposition temperat | ure | : | No data available |





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

Viscosity

| Viscosity, dynamic | : | No data available |
|----------------------|---|-------------------|
| Viscosity, kinematic | : | Not applicable |
| Explosive properties | : | Not explosive |
| . | | |
| Oxidizing properties | : | No data available |
| Sublimation point | : | No data available |

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. |

11. TOXICOLOGICAL INFORMATION

| Acute toxicity | | |
|---------------------------------|---|----------------------------------------------------------------------|
| Product: Acute oral toxicity | : | Acute toxicity estimate: > 5,000 mg/kg Method: Calculation method |
| Acute inhalation toxicity | : | Remarks: This information is not available. |
| Acute dermal toxicity | : | Remarks: This information is not available. |

Components:

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





| rsion | Revision Date: 2023-07-17 | | st issue: 2023-02-09 rst issue: 2014-05-21 Print Date: 2023-07-17 |
|----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acute | e oral toxicity | : | LD50 (Rat, male): 3,100 mg/kg Method: OECD Test Guideline 401 GLP: no |
| Acute | e dermal toxicity | : | LD50 (Rabbit, male): > 5,000 mg/kg Method: OECD Test Guideline 402 GLP: no |
| Benz | zenamine, N-pher | yl-, reacti | on products with 2,4,4-trimethylpentene: |
| Acute | e oral toxicity | : | LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 |
| Acute | e dermal toxicity | : | LD50 (Rat): > 2,000 mg/kg Method: OECD Test Guideline 402 Assessment: The substance or mixture has no acute derma toxicity |
| Benz | zenesulfonic acid | , di-C10-1 | 8-alkyl derivs., calcium salts: |
| Acute | e oral toxicity | : | LD50 (Rat): > 5,000 mg/kg Method: OECD Test Guideline 401 |
| Acute | e inhalation toxicity | · : | LC50 (Rat): > 1.9 mg/l Exposure time: 4 h Test atmosphere: dust/mist Assessment: The substance or mixture has no acute inhalation toxicity |
| A | | | LD50 (Rabbit): > 5,000 mg/kg |
| Acute | e dermal toxicity | · | |
| | e dermal toxicity corrosion/irritation | | |
| | corrosion/irritatio | | This information is not available. |
| Skin <u>Prod</u> Rema | corrosion/irritatio | | This information is not available. |
| Skin Prod Rema | corrosion/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/irritation/i | on : | This information is not available. |
| Skin Prod Rema <u>Com</u> zinc Spec | corrosion/irritation luct: arks ponents: bis[0,0-bis(2-etheories | on : | bis(dithiophosphate): Rabbit |
| Skin Prod Rema <u>Com</u> zinc Spec | corrosion/irritation luct: arks ponents: bis[0,0-bis(2-etheodology ssment | on : | bis(dithiophosphate): |





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

| Result | : No skin irritation |
|--------|----------------------|
| GLP | : yes |

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

| Species | : | Rabbit |
|------------|---|--------------------|
| Assessment | : | No skin irritation |
| Result | : | No skin irritation |

Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts:

| Assessment | : | No skin irritation |
|------------|---|--------------------|
| Result | : | No skin irritation |

Serious eye damage/eye irritation

Product:

Components:

zinc bis[0,0-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 |

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

| Species | : | Rabbit |
|------------|---|-------------------|
| Result | : | No eye irritation |
| Assessment | : | No eye irritation |

Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts:

| Result | : | No eye irritation |
|------------|---|-------------------|
| Assessment | : | No eye irritation |

Respiratory or skin sensitisation

Product:

Remarks

: This information is not available.





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

Components:

zinc bis[0,0-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 |

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

| Species : | Guinea pig |
|--------------|------------------------------------|
| Assessment : | Does not cause skin sensitisation. |
| Method : | OECD Test Guideline 406 |
| Result : | Does not cause skin sensitisation. |

Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts:

| Assessment | : | The product is a skin sensitiser, sub-category 1B. |
|------------|---|----------------------------------------------------|
| Result | : | The product is a skin sensitiser, sub-category 1B. |

| Germ cell | mutagenicity |
|-----------|--------------|
|-----------|--------------|

| Product: | | |
|-----------------------|---|----------------------------|
| Genotoxicity in vitro | : | Remarks: No data available |
| | | |

Genotoxicity in vivo : Remarks: No data available

Carcinogenicity

Remarks

: No data available

Reproductive toxicity

Product:

| Effects on fertility | : | Remarks: No data available |
|----------------------|---|----------------------------|
| Effects on foetal | : | Remarks: No data available |





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

development

Components:

| Reproductive toxicity - | : - Fertility - |
|----------------------------------------------|-------------------------------------------------------------------------------------------------|
| Assessment | Some evidence of adverse effects on sexual function and fertility, based on animal experiments. |
| Benzenesulfonic acid, di-C1 | 0-18-alkyl derivs., calcium salts: |
| Reproductive toxicity - | : - Fertility - |
| Assessment | No toxicity to reproduction |
| STOT - single exposure | |
| Product: | |
| Remarks | : No data available |
| STOT - repeated exposure | |
| Product: | |
| Remarks | : No data available |
| Repeated dose toxicity | |
| Product: | |
| Remarks | : This information is not available. |
| Aspiration toxicity | |
| Product: This information is not availabl | e. |
| Components: | |
| zinc his[0 0-his(2-othylboxy | I)] bis(dithiophosphate): |

No aspiration toxicity classification





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

Further information

Product:

Remarks

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

| 12. ECOLOGICAL INFORMATION | |
|----------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecotoxicity | |
| Product: Toxicity to fish : | Remarks: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. |
| 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: | |
| 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 |





| OKS 41 | 0 | | |
|----------------|-------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Version 2.4 | Revision Date: 2023-07-17 | | ast issue: 2023-02-09 irst issue: 2014-05-21 Print Date: 2023-07-17 |
| | | | Method: OECD Test Guideline 201 GLP: yes |
| aqua | city to daphnia and atic invertebrates onic toxicity) | l other : | 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. |
| Toxi | city to microorgani | sms : | EC50 (Pseudomonas putida): 380 mg/l Exposure time: 16 h Test Type: static test GLP: yes |
| | zenamine, N-phe city to fish | nyl-, react : | ion products with 2,4,4-trimethylpentene: LC50 (Danio rerio (zebra fish)): > 100 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 |
| | city to daphnia and atic invertebrates | l other : | EC50 (Daphnia magna (Water flea)): 51 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 |
| | city to algae/aquat ts | ic : | EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| aqua | city to daphnia and atic invertebrates onic toxicity) | l other : | EL10 (Daphnia magna (Water flea)): 1.69 mg/l Exposure time: 21 d |
| Toxi | city to microorgani | sms : | EC50 (activated sludge): > 100 mg/l Exposure time: 3 h Test Type: Respiration inhibition Method: OECD Test Guideline 209 |

| Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts: | | | |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------|--|
| Toxicity to fish | LC50 (Oncorhynchus mykiss (rainbow trout)): > 10 Exposure time: 96 h Method: OECD Test Guideline 203 | 0 mg/l | |





| Revision Date: 2023-07-17 | | ast issue: 2023-02-09 irst issue: 2014-05-21 Print Date: 2023-07-17 |
|-------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | |
| city to daphnia and atic invertebrates | d other : | EC50 (Daphnia magna (Water flea)): > 100 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 |
| city to algae/aquati ts | ic : | EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| city to microorgani | sms : | EC50 (activated sludge): > 10,000 mg/l Exposure time: 3 h Test Type: static test |
| sistence and degr | adability | |
| <u>duct:</u> egradability | : | Remarks: No data available |
| sico-chemical ovability | : | Remarks: No data available |
| ponents: | | |
| bis[O,O-bis(2-eth | nylhexyl)] | bis(dithiophosphate): |
| egradability | : | Result: Not rapidly biodegradable Biodegradation: < 5 % Exposure time: 27 d Method: OECD Test Guideline 301D GLP: no |
| zenamine, N-pher egradability | nyl-, react : | ion products with 2,4,4-trimethylpentene: aerobic Inoculum: activated sludge Result: Not rapidly biodegradable Biodegradation: 1 % Exposure time: 28 d Method: OECD Test Guideline 301B GLP: yes |
| | 2023-07-17 city to daphnia and atic invertebrates city to algae/aquat ts city to microorgani sistence and degr <u>fuct:</u> egradability sico-chemical ovability hponents: bis[O,O-bis(2-etf egradability | 2023-07-17 Date of fill city to daphnia and other : itic invertebrates city to algae/aquatic : : city to microorganisms : : sistence and degradability : duct: : egradability : sico-chemical : bis[O,O-bis(2-ethylhexyl)] egradability bis[O,O-bis(2-ethylhexyl)] egradability zenamine, N-phenyl-, react |

Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts:





| sion | | | st issue: 2023-02-09 st issue: 2014-05-21 Print Date: 2023-07-17 |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Biod | egradability | : | Result: Not readily biodegradable. |
| Bioa | ccumulative poten | tial | |
| Prod | luct: | | |
| Bioa | ccumulation | : | 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). |
| <u>Com</u> | ponents: | | |
| zinc | bis[O,O-bis(2-ethy | lhexyl)] l | bis(dithiophosphate): |
| Parti | tion coefficient: n- nol/water | : | log Pow: 3.59 (22 °C) pH: 5 Method: OECD Test Guideline 107 GLP: yes |
| | zenamine, N-pheny ccumulation | I-, reacti | on products with 2,4,4-trimethylpentene: Species: Cyprinus carpio (Carp) |
| DiOdi | | · | Bioconcentration factor (BCF): 1,730 Exposure time: 42 d Remarks: Due to the distribution coefficient n-octanol/wate accumulation in organisms is possible. |
| _ | | | |
| | tion coefficient: n- nol/water | : | log Pow: > 6 |
| octar | nol/water | : di-C10-18 | log Pow: > 6 8-alkyl derivs., calcium salts: |
| octar Benz | nol/water | : di-C10-11 : | |
| octar Benz Bioa | nol/water zenesulfonic acid, o | di-C10-11 | 8-alkyl derivs., calcium salts: |
| octar Benz Bioa | nol/water zenesulfonic acid, o ccumulation ility in soil | : di-C10-18 : | 8-alkyl derivs., calcium salts: |
| octar Benz Bioad | nol/water zenesulfonic acid, o ccumulation ility in soil luct: | : di-C10-18 : | 8-alkyl derivs., calcium salts: |
| octar Benz Bioa Mob Prod Mobi | nol/water zenesulfonic acid, o ccumulation ility in soil luct: | : | 8-alkyl derivs., calcium salts: Bioconcentration factor (BCF): 70.8 |
| octar Benz Bioad Mob Prod Mobi Distr envir | nol/water zenesulfonic acid, o ccumulation ility in soil <u>luct:</u> ility ibution among | : | 8-alkyl derivs., calcium salts: Bioconcentration factor (BCF): 70.8 Remarks: No data available |





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

Additional ecological : Harmful to aquatic life with long lasting effects. information

Components:

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

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

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

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

Benzenesulfonic acid, di-C10-18-alkyl derivs., calcium salts:

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

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. |

14. TRANSPORT INFORMATION

International Regulations

| UNRTDG | | |
|----------------------|---|----------------|
| UN number | : | Not applicable |
| Proper shipping name | : | Not applicable |
| Class | : | Not applicable |
| Subsidiary risk | : | Not applicable |
| Packing group | : | Not applicable |
| Labels | : | Not applicable |

IATA-DGR



CN



OKS 410

| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

| UN/ID No. Proper shipping name Class Subsidiary risk Packing group Labels Packing instruction (cargo aircraft) Packing instruction (passenger aircraft) | : No : No : No : No : No | t applicable t applicable t applicable t applicable t applicable t applicable t applicable t applicable |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------|
| IMDG-Code UN number Proper shipping name Class Subsidiary risk Packing group Labels EmS Code Marine pollutant | : No : No : No : No : No : No | t applicable t applicable t applicable t applicable t applicable t applicable t applicable t applicable t applicable |

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

Not applicable for product as supplied.

National Regulations

GB 6944/12268

| UN number | : Not applicable |
|----------------------|------------------|
| Proper shipping name | : Not applicable |
| Class | : Not applicable |
| Subsidiary risk | : Not applicable |
| Packing group | : Not applicable |
| Labels | : Not applicable |

Special precautions for user

Not applicable

15. REGULATORY INFORMATION

National regulatory information Law on the Prevention and Control of Occupational Diseases

Regulations on Safety Management of Hazardous Chemicals

| Catalogue of Hazardous Chemicals | : | Not applicable |
|--------------------------------------------------------|---|----------------|
| Hazardous Chemicals for Priority Management under SAWS | : | Not applicable |





VersionRevision Date:Date of last issue: 2023-02-092.42023-07-17Date of first issue: 2014-05-21Print Date: 2023-07-17

Regulation of Environmental Management on the First Import of Chemicals and the Import and Export of Toxic Chemicals

China Severely Restricted Toxic Chemicals for Import : Not applicable and Export

International Regulations

| Montreal Protocol | : | Not applicable |
|------------------------------------------------------|---|----------------|
| Rotterdam Convention (Prior Informed Consent) | : | Not applicable |
| Stockholm Convention (Persistent Organic Pollutants) | : | Not applicable |

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

: yyyy/mm/dd

| IECSC : On t | he inventory, or in compliance with the inventory |
|--------------|---------------------------------------------------|
|--------------|---------------------------------------------------|

16. OTHER INFORMATION

Date format

| Full text of other abbreviations | | | | |
|----------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| ACGIH CN OEL | : | USA. ACGIH Threshold Limit Values (TLV) Occupational exposure limits for hazardous agents in the workplace - Chemical hazardous agents. | | |
| ACGIH / TWA CN OEL / PC-TWA | : | 8-hour, time-weighted average Permissible concentration - time weighted average | | |

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





| Version | Revision Date: | Date of last issue: 2023-02-09 | |
|---------|----------------|---------------------------------|------------------------|
| 2.4 | 2023-07-17 | Date of first issue: 2014-05-21 | Print Date: 2023-07-17 |

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; TECI - 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

Disclaimer

This safety data sheet applies only to products as originally packed and labelled. The information contained therein may not be reproduced or modified without our express written permission. Any forwarding of this document is only permitted to the extent required by law. Any further, in particular public, dissemination of the safety data sheet (e.g. as a document for download from the Internet) is not permitted without our express written consent. We provide our customers with amended safety data sheets as prescribed by law. The customer is responsible for passing on safety data sheets and any amendments contained therein to its own customers, employees and other users of the product. We provide no guarantee that safety data sheets received by users from third parties are up-to-date. All information and instructions in this safety data sheet have been compiled to the best of our knowledge and are based on the information available to us on the day of publication. The information provided is intended to describe the product in relation to the required safety measures; it is neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and does not justify any contractual legal relationship. The existence of a safety data sheet for a particular jurisdiction does not necessarily mean that import or use within that jurisdiction is legally permitted. If you have any questions, please contact your responsible sales contact or authorized trading partner.

