

HAND CLEANER FINE 4LTR

| Vers 5.1 | sion | Revision Date: 14.11.2020 | | S Number: 607-00005 | Date of last issue: 29.04.2020 Date of first issue: 04.06.2012 | | |
|-------------|----------------------------|------------------------------|---------------------------------|--|--|--|--|
| SEC | CTION 1 | . PRODUCT AND COM | /IPAI | NY IDENTIFICATI | ON | | |
| | Produc | et name | : | HAND CLEANER | R FINE 4LTR | | |
| | Produc | t code | : | 0893 900 0 | | | |
| | Manuf | acturer or supplier's d | letai | ls | | | |
| | Compa | any | : | Wurth Australia F | Pty Ltd | | |
| | Addres | S | : | 2/1 Healey Road Dandenong Sout | h, Victoria, 3175 | | |
| | Teleph | one | : | +61 3 8788 1111 | | | |
| | Emerg | ency telephone number | • : | 1300 657 765. Ad Poisons Centre: | dvisory office in case of poisoning - National 131 126 | | |
| | E-mail | address | : | prodsafe@wuerth | n.com | | |
| | Recommended use of the che | | nemical and restrictions on use | | | | |
| | Recom | mended use | : | Cosmetic product | ts | | |
| | | | | | | | |
| | Restric | tions on use | : | | | | |
| | | | | sumers and other able use. Cosmer fined by regulatio requirement of ar not considered ha mation critical to uct for industrial unintended expose retained and avail product. For spec | I care or cosmetic product that is safe for con- r users under normal and reasonably foresee- tics and consumer products, specifically de- ns around the world, are exempt from the n SDS for the consumer. While this material is azardous, this SDS contains valuable infor- the safe handling and proper use of the prod- workplace conditions as well as unusual and sures such as large spills. This SDS should be lable for employees and other users of this cific intended-use guidance, please refer to the ded on the package or instruction sheet. | | |

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage/eye irri- : Category 2A tation

GHS label elements



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| Haz | ard pictograms | | |
| Sig | nal word | : Warning | |
| Haz | ard statements | : H319 Caus | es serious eye irritation. |
| Pre | cautionary statements | | : skin thoroughly after handling. eye protection/ face protection. |
| | | Response: | |
| | | for several easy to do. | i1 + P338 IF IN EYES: Rinse cautiously with water minutes. Remove contact lenses, if present and Continue rinsing. 3 If eye irritation persists: Get medical advice/ at- |

Other hazards which do not result in classification

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Substance / | Mixture | : | Mixture |
|-------------|---------|---|---------|
| 0000000000 | | | |

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|-------------|-----------------------|
| Isotridecanol, ethoxylated | 69011-36-5 | < 10 |
| Sulfonic acids, C14-17-sec-alkane, sodium | 97489-15-1 | >= 3 -< 10 |
| salts | | |
| Glucopyranose, oligomeric C10-16 glycosides | 110615-47-9 | >= 1 -< 3 |
| Orange, sour, extract | 72968-50-4 | < 1 |
| (R)-p-mentha-1,8-diene | 5989-27-5 | < 1 |
| Titanium dioxide | 13463-67-7 | < 1 |

SECTION 4. FIRST AID MEASURES

| General advice | : | In the case of accident or if you feel unwell, seek medical ad- vice immediately. When symptoms persist or in all cases of doubt seek medical advice. |
|-------------------------|---|--|
| If inhaled | : | If inhaled, remove to fresh air. Get medical attention if symptoms occur. |
| In case of skin contact | : | In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. |



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| | | Thoroughly c | lean shoes before reuse. | | | | |
| In cas | se of eye contact | for at least 15 If easy to do, | In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If easy to do, remove contact lens, if worn. Get medical attention. | | | | |
| lf swa | llowed | Get medical | If swallowed, DO NOT induce vomiting. Get medical attention if symptoms occur. Rinse mouth thoroughly with water. | | | | |
| | important symptoms ffects, both acute and ed | : Causes serio | us eye irritation. | | | | |
| Prote | ction of first-aiders | and use the | : First Aid responders should pay attention to self-protection, and use the recommended personal protective equipment when the potential for exposure exists (see section 8). | | | | |
| Notes | to physician | : Treat sympto | matically and supportively. | | | | |

SECTION 5. FIREFIGHTING MEASURES

| Suitable extinguishing media | : | Water spray Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical |
|---|---|---|
| Unsuitable extinguishing media | : | None known. |
| Specific hazards during fire- fighting | : | Exposure to combustion products may be a hazard to health. |
| Hazardous combustion prod- ucts | : | Carbon oxides Oxides of phosphorus Metal oxides Sulphur oxides |
| Specific extinguishing meth- ods | : | Use extinguishing measures that are appropriate to local cir- cumstances and the surrounding environment. Use water spray to cool unopened containers. Remove undamaged containers from fire area if it is safe to do so. Evacuate area. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. Use personal protective equipment. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

| Personal precautions, protec- : | Use personal protective equipment. |
|---------------------------------|---|
| tive equipment and emer- | Follow safe handling advice (see section 7) and personal pro- |



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| | gency p | procedures | | tective equipment | recommendations (see section 8). | |
| | Environmental precautions | | Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Prevent spreading over a wide area (e.g. by containment or barriers). Retain and dispose of contaminated wash water. Local authorities should be advised if significant spillages cannot be contained. | | | |
| | Methods and materials for containment and cleaning up | | : | For large spills, pr ment to keep mate be pumped, store Clean up remainin bent. Local or national r posal of this mate employed in the c mine which regula Sections 13 and 1 | absorbent material. ovide dyking or other appropriate contain- erial from spreading. If dyked material can recovered material in appropriate container. og materials from spill with suitable absor- egulations may apply to releases and dis- rial, as well as those materials and items leanup of releases. You will need to deter- tions are applicable. 5 of this SDS provide information regarding tional requirements. | |

SECTION 7. HANDLING AND STORAGE

| Technical measures | : | See Engineering measures under EXPOSURE CONTROLS/PERSONAL PROTECTION section. |
|-----------------------------|---|---|
| Local/Total ventilation | : | Use only with adequate ventilation. |
| Advice on safe handling | : | Do not get on skin or clothing. Avoid breathing mist or vapours. Do not swallow. Do not get in eyes. Wash skin thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice, based on the results of the workplace exposure as- sessment Take care to prevent spills, waste and minimize release to the environment. |
| Hygiene measures | : | If exposure to chemical is likely during typical use, provide eye flushing systems and safety showers close to the working place. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before re-use. |
| Conditions for safe storage | : | Keep in properly labelled containers. Store in accordance with the particular national regulations. |
| Materials to avoid | : | No special restrictions on storage with other products. |



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| | Recommended storage tem- perature | | | |
| Ste | orage period | : 24 Moi | nths | |

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parame- ters / Permissible concentration | Basis |
|------------------|------------|---------------------------------------|--|---------------|
| Titanium dioxide | 13463-67-7 | TŴA | 10 mg/m3 | AU OEL |
| | | ation: This value < 1% crystalline | is for inhalable dust silica | containing no |
| | | TWA | 10 mg/m3 (Titanium dioxide) | ACGIH |

These substance(s) are inextricably bound in the product and therefore do not contribute to a dust inhalation hazard.

Titanium dioxide

| Engineering measures | : | Ensure adequate ventilation, especially in confined areas. Minimize workplace exposure concentrations. | |
|----------------------------|-----|--|--|
| Personal protective equipm | ent | | |
| Respiratory protection | : | If adequate local exhaust ventilation is not available or expo- sure assessment demonstrates exposures outside the rec- ommended guidelines, use respiratory protection. | |
| Filter type | : | Combined particulates and organic vapour type | |
| Hand protection | | | |
| Remarks | : | not required | |
| Eye protection | : | Wear the following personal protective equipment: Safety goggles | |
| Skin and body protection | : | Select appropriate protective clothing based on chemical resistance data and an assessment of the local exposure potential. Skin contact must be avoided by using impervious protective clothing (gloves, aprons, boots, etc). | |

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : coloured



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|----------------|--|---|-------------------------|---|
| | | | | |
| Od | our | : | characteristic | |
| Od | our Threshold | : | No data available | 9 |
| pН | | : | 7 | |
| Me | Iting point/freezing point | : | No data available |) |
| Init rar | ial boiling point and boiling ge | : | No data available | |
| Fla | sh point | : | does not flash | |
| Eva | aporation rate | : | No data available |) |
| Fla | mmability (solid, gas) | : | Not applicable | |
| Fla | mmability (liquids) | : | No data available | 9 |
| | per explosion limit / Upper nmability limit | : | No data available | |
| | wer explosion limit / Lower nmability limit | : | No data available | 3 |
| Va | pour pressure | : | No data available | 9 |
| Re | lative vapour density | : | No data available | |
| De | nsity | : | 1 g/cm3 (20 °C) | |
| So | lubility(ies) Water solubility | : | completely solub | le |
| | rtition coefficient: n- anol/water | : | Not applicable | |
| Au | to-ignition temperature | : | No data available | 9 |
| De | composition temperature | : | No data available | 9 |
| Vis | cosity Viscosity, dynamic | : | 70,000 mPa.s (4 | .0 °C) |
| | Viscosity, kinematic | : | No data available | |
| Ex | plosive properties | : | Not explosive | |
| Ox | idizing properties | : | The substance of | r mixture is not classified as oxidizing. |
| Pa | rticle size | : | Not applicable | |





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| | | | | |
| SECTIO | ON 10. STABILITY AND RE | EAC | TIVITY | |
| Ro | activity | | Not classified as | a reactivity hazard. |
| | | • | | |
| Ch | emical stability | : | Stable under nor | mal conditions. |
| Po tior | ssibility of hazardous reac- ns | : | None known. | |
| Co | nditions to avoid | : | None known. | |
| Inc | compatible materials | : | None. | |
| | zardous decomposition | : | No hazardous de | ecomposition products are known. |
| SECTIC | ON 11. TOXICOLOGICAL I | NFC | ORMATION | |
| Ex | posure routes | : | Inhalation Skin contact Ingestion Eye contact | |
| | ute toxicity t classified based on availa | ble | information. | |
| Pro | oduct: | | | |
| Ac | ute oral toxicity | : | Acute toxicity esti Method: Calculati | mate: > 2,000 mg/kg on method |
| <u>Co</u> | mponents: | | | |
| lsc | otridecanol, ethoxylated: | | | |
| Ac | ute oral toxicity | : | LD50 (Rat): > 5,0 Remarks: Based | 00 mg/kg on data from similar materials |
| Su | Ifonic acids, C14-17-sec-a | alka | ne, sodium salts: | |
| Ac | ute oral toxicity | : | LD50 (Rat): > 500 Method: OECD T | |
| Ac | ute dermal toxicity | : | LD50 (Mouse): > Assessment: The toxicity | 2,000 mg/kg substance or mixture has no acute dermal |
| Gl | ucopyranose, oligomeric | C10 | -16 glycosides: | |
| Ac | ute oral toxicity | : | LD50 (Rat): > 5,0 | 00 mg/kg |
| Ac | ute dermal toxicity | : | LD50 (Rabbit): > Assessment: The toxicity | 2,000 mg/kg substance or mixture has no acute dermal |



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|---|--|---|---|
| Orang | ge, sour, extract: | | |
| Acute | oral toxicity | : LD50 (Rat): > | 5,000 mg/kg |
| Acute | dermal toxicity | : LD50 (Rabbit) | : > 8,500 mg/kg |
| (R)-n- | mentha-1,8-diene: | | |
| • • • | oral toxicity | : LD50 (Rat): > | 2 000 ma/ka |
| / louio | orar toxiony | Method: OECI | D Test Guideline 423 ed on data from similar materials |
| Acute | dermal toxicity | : LD50 (Rabbit) Remarks: Bas | : > 5,000 mg/kg ed on data from similar materials |
| Titani | um dioxide: | | |
| Acute | oral toxicity | : LD50 (Rat): > | 5,000 mg/kg |
| Acute | inhalation toxicity | : LC50 (Rat): > Exposure time Test atmosphe | e: 4 h ere: dust/mist |
| | | Assessment: ⁻ tion toxicity | The substance or mixture has no acute inhala |
| <u>Comp</u> | assified based on ava ponents: nic acids. C14-17-se | | lts: |
| Comp Sulfor Specie Metho | p onents: n ic acids, C14-17-se es od | c-alkane, sodium sa : Rabbit : OECD Test G | |
| <u>Comp</u> Sulfor Specie | p onents: n ic acids, C14-17-se es od | c-alkane, sodium sa : Rabbit | |
| Comp Sulfor Specie Metho Result | ponents: nic acids, C14-17-se es od t | c-alkane, sodium sa : Rabbit : OECD Test G | uideline 404 |
| Comp Sulfor Specie Metho Result Gluco Specie | ponents: nic acids, C14-17-se es od t pyranose, oligomer es | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit | uideline 404 s: |
| Comp Sulfor Specie Metho Result | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od | c-alkane, sodium sa Rabbit OECD Test G Skin irritation | uideline 404 s: |
| Comp Sulfor Specie Metho Result Specie Metho Result | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycosides Rabbit OECD Test G | uideline 404 s: |
| Comp Sulfor Specie Metho Result Specie Metho Result | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit OECD Test G Skin irritation | uideline 404 s: |
| Comp Sulfor Specie Metho Result Gluco Specie Metho Result Orang Specie | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: es | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit OECD Test G Skin irritation | uideline 404 s: uideline 404 |
| Comp Sulfor Specie Metho Specie Metho Result Orang Specie Metho | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: es od | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit OECD Test G Skin irritation : Rabbit CECD Test G Skin irritation | uideline 404 s: uideline 404 |
| Comp Sulfor Specie Metho Result Gluco Specie Metho Result Orang Specie | ponents: nic acids, C14-17-se es ad t ppyranose, oligomer es ad t ge, sour, extract: es ad | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit OECD Test G Skin irritation : Rabbit CECD Test G Skin irritation | uideline 404 s: uideline 404 |
| Comp Sulfor Specie Metho Result Gluco Specie Metho Result Specie Metho Result Result | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: es od t rks | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycoside: Rabbit OECD Test G Skin irritation : Rabbit CECD Test G Skin irritation | uideline 404 s: uideline 404 uideline 404 |
| Comp Sulfor Specie Metho Specie Metho Result Orang Specie Result Rema | ponents: nic acids, C14-17-se es ad t ppyranose, oligomer es ad t ge, sour, extract: es ad t rks mentha-1,8-diene: | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycosides Rabbit OECD Test G Skin irritation Rabbit OECD Test G Skin irritation Based on data | uideline 404 s: uideline 404 uideline 404 |
| Comp Sulfor Specie Metho Specie Metho Result Orang Specie Metho Result Rema (R)-p- Specie | ponents: nic acids, C14-17-se es od t opyranose, oligomer es od t ge, sour, extract: es od t rks mentha-1,8-diene: es | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycosides Rabbit OECD Test G Skin irritation Rabbit OECD Test G Skin irritation Based on data Rabbit | uideline 404 s: uideline 404 uideline 404 a from similar materials |
| Comp Sulfor Specie Metho Specie Metho Result Orang Specie Result Rema | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: es od t rks mentha-1,8-diene: es | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycosides Rabbit OECD Test G Skin irritation Rabbit OECD Test G Skin irritation Based on data | uideline 404 s: uideline 404 uideline 404 a from similar materials |
| Comp Sulfor Specie Metho Specie Metho Result Orang Specie Result Rema (R)-p- Specie Result Rema | ponents: nic acids, C14-17-se es od t ppyranose, oligomer es od t ge, sour, extract: es od t rks mentha-1,8-diene: es | c-alkane, sodium sa Rabbit OECD Test G Skin irritation ic C10-16 glycosides Rabbit OECD Test G Skin irritation Rabbit OECD Test G Skin irritation Based on data Rabbit OECD Test G | uideline 404 s: uideline 404 uideline 404 a from similar materials |



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|------------------|---|--------|--|---|
| Result | t | : | No skin irritation | |
| | us eye damage/eye ir es serious eye irritation | | ion | |
| <u>Comp</u> | onents: | | | |
| Isotric | decanol, ethoxylated | : | | |
| Result Rema | | : | | reversing within 21 days om similar materials |
| Sulfor | nic acids, C14-17-sec | :-alka | ane, sodium salts: | : |
| Specie | | : | Rabbit | |
| Result Metho | | : | Irreversible effect OECD Test Guid | |
| Gluco | pyranose, oligomeri | c C1 | 0-16 glycosides: | |
| Specie | | : | Rabbit | |
| Result Metho | | : | Irreversible effect OECD Test Guide | |
| Orang | je, sour, extract: | | | |
| Specie Result | | : | Rat No eye irritation | |
| (R)-p- | mentha-1,8-diene: | | | |
| Specie | | : | Rabbit | |
| Result Metho | | : | No eye irritation OECD Test Guide | eline 405 |
| Titani | um dioxide: | | | |
| Specie Result | | : | Rabbit No eye irritation | |
| Respi | ratory or skin sensiti | isatio | on | |
| | sensitisation assified based on avai | lable | information. | |
| - | ratory sensitisation assified based on avai | lable | information. | |
| | onents: | | | |
| | nic acids, C14-17-sec | :-alka | ane, sodium salts: | : |
| Test T | ype ure routes es | : | Maximisation Tes Skin contact Guinea pig negative | |



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| Gluce | opvranose, oligome | ric C10-16 glycosides: | |
| Test | Type sure routes ies od | Buehler Test Skin contact Guinea pig OECD Test Guideline 406 negative | |
| Oran | ge, sour, extract: | | |
| Test Expos Speci Metho Resu | sure routes ies od | Local lymph node assay (LLNA) Skin contact Mouse OECD Test Guideline 429 positive | |
| Asse | ssment | : Probability or evidence of skin sensitisation in humans | |
| Test | sure routes ies od | Local lymph node assay (LLNA) Skin contact Mouse OECD Test Guideline 429 positive | |
| Asse | ssment | : Probability or evidence of low to moderate skin sensitisation rate in humans | 'n |
| Titan | ium dioxide: | | |
| Test Expos Speci Resu | sure routes ies | Local lymph node assay (LLNA) Skin contact Mouse negative | |
| Chro | nic toxicity | | |
| | n cell mutagenicity lassified based on ava | ailable information. | |
| | ponents: | | |
| | nic acids, C14-17-se toxicity in vitro | ec-alkane, sodium salts: Test Type: Bacterial reverse mutation assay (AMES) Result: negative | |
| Geno | toxicity in vivo | : Test Type: Mammalian erythrocyte micronucleus test (in v cytogenetic assay) Species: Mouse Application Route: Ingestion Result: negative | VO |
| Gluce | opyranose, oligome | ric C10-16 glycosides: | |
| Geno | toxicity in vitro | : Test Type: Chromosome aberration test in vitro Method: OECD Test Guideline 473 | |



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| | | | | Result: negative | |
| G | Genotoxicity in vivo | | : | Test Type: Mammalian erythrocyte micronucleus test (cytogenetic assay) Species: Mouse Application Route: Intraperitoneal injection Method: OECD Test Guideline 474 Result: negative | |
| С | Drange | e, sour, extract: | | | |
| | - | xicity in vitro | : | Test Type: Bacter Method: OECD To Result: negative | ial reverse mutation assay (AMES) est Guideline 471 |
| (1 | R)-p-n | nentha-1,8-diene: | | | |
| - | | exicity in vitro | : | Method: OECD Te Result: negative | ial reverse mutation assay (AMES) est Guideline 471 on data from similar materials |
| | | | | Test Type: In vitro Result: negative | mammalian cell gene mutation test |
| | | | | Test Type: Chrom Result: negative | osome aberration test in vitro |
| G | Genoto | oxicity in vivo | : | Test Type: In vivo Species: Rat Application Route Result: negative | mammalian alkaline comet assay : Ingestion |
| т | Fitaniu | ım dioxide: | | | |
| | | oxicity in vitro | : | Test Type: Bacter Result: negative | ial reverse mutation assay (AMES) |
| G | Genoto | oxicity in vivo | : | Test Type: In vivo Species: Mouse Result: negative | micronucleus test |

Carcinogenicity

Not classified based on available information.

Components:

Sulfonic acids, C14-17-sec-alkane, sodium salts:

| Species | : Rat | |
|-------------------|-------------|--|
| Application Route | : Ingestion | |
| Exposure time | : 2 Years | |
| Result | : negative | |

(R)-p-mentha-1,8-diene:

| Species | : | Mouse |
|---------|---|-------|
| | | |



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|-----------------|--|----------------------------------|--|--|
| | cation Route sure time t | : 10 | gestion 03 weeks egative | |
| Titani | um dioxide: | | | |
| | ation Route sure time od t | : in : 2 : O : p : T | Years ECD Test G ositive | st/mist/fume) uideline 453 sm or mode of action may not be relevant in h |
| Carcir ment | nogenicity - Assess- | | mited evider nimals. | nce of carcinogenicity in inhalation studies wit |
| - | oductive toxicity assified based on ava | ilabla inf | ormotion | |
| | onents: | | ormation. | |
| | nic acids, C14-17-se | -alkana | sodium s | alte- |
| | s on fertility | : T S A | est Type: Tv pecies: Rat | vo-generation reproduction toxicity study oute: Ingestion |
| Effect ment | s on foetal develop- | S A | Test Type: Embryo-foetal development Species: Rat Application Route: Ingestion Result: negative | |
| Gluco | opyranose, oligomeri | c C10-1 | 6 glycoside | S: |
| Effect | s on fertility | te S A N | st pecies: Rat pplication Re | production/Developmental toxicity screening oute: Ingestion D Test Guideline 421 ve |
| Effect: ment | s on foetal develop- | S A M | pecies: Rat pplication Re | nbryo-foetal development oute: Ingestion D Test Guideline 414 ve |
| (R)-p- | mentha-1,8-diene: | | | |
| Effect ment | s on foetal develop- | S A | pecies: Rat | nbryo-foetal development oute: Ingestion ve |



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|-------------|---------------------------|-----------------------------|--|
| STOT | - single exposure | | |
| Not cl | assified based on ava | ailable information. | |
| STOT | - repeated exposur | e | |
| | assified based on av | | |
| <u>Comp</u> | oonents: | | |
| (R)-p- | -mentha-1,8-diene: | | |
| Asses | ssment | | nealth effects observed in animals at concentr g/kg bw or less. |
| Repe | ated dose toxicity | | |
| Comp | oonents: | | |
| Sulfo | nic acids, C14-17-se | c-alkane, sodium sal | ts: |
| Speci | | : Rat | |
| NOAE | | : >= 4,000 mg/k | g |
| | cation Route | : Ingestion : 52 Weeks | |
| Expos | sure time | 52 Weeks | |
| Gluco | opyranose, oligome | ic C10-16 glycosides | :: |
| Speci | | : Rat | |
| NOAE | | : 1,000 mg/kg | |
| | cation Route | : Ingestion : 90 Days | |
| Metho | sure time od | | 8/EEC, Annex, B.26 |
| (R)-n- | mentha-1,8-diene: | | |
| Speci | | : Rat, male | |
| NOAE | | : 5 mg/kg | |
| LOAE | | : 30 mg/kg | |
| | cation Route | : Ingestion | |
| | sure time | : 13 Weeks | |
| Titani | ium dioxide: | | |
| Speci | es | : Rat | |
| NOAE | EL | : 24,000 mg/kg | |
| | cation Route | : Ingestion | |
| Expos | sure time | : 28 Days | |
| Speci | es | : Rat | |
| NOAE | | : 10 mg/m3 | |
| | cation Route | : inhalation (dus | t/mist/fume) |
| Expos | sure time | : 2 yr | |
| Aspir | ation toxicity | | |
| - | assified based on ava | ailable information | |



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Components:

Orange, sour, extract:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

(R)-p-mentha-1,8-diene:

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

| Isotridecanol, ethoxylated: Toxicity to fish | | LC50 (Leuciscus idus (Golden orfe)): > 1 - 10 mg/l |
|--|------|--|
| | | Exposure time: 96 h Method: DIN 38412 Remarks: Based on data from similar materials |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): > 1 - 10 mg/l Exposure time: 48 h Remarks: Based on data from similar materials |
| Toxicity to algae/aquatic plants | : | EC50: > 1 - 10 mg/l Exposure time: 72 h Remarks: Based on data from similar materials |
| Toxicity to fish (Chronic tox- icity) | : | NOEC (Fish): > 0.1 - 1 mg/l |
| Toxicity to microorganisms | : | EC10: > 2,500 mg/l Exposure time: 17 h Method: DIN 38 412 Part 8 Remarks: Based on data from similar materials |
| Sulfonic acids, C14-17-sec-a | alka | ane, sodium salts: |
| Toxicity to fish | : | LC50 (Leuciscus idus (Golden orfe)): 5.5 mg/l Exposure time: 96 h Method: OECD Test Guideline 203 |
| Toxicity to daphnia and other aquatic invertebrates | : | EC50 (Daphnia magna (Water flea)): 9.2 mg/l Exposure time: 48 h Method: OECD Test Guideline 202 |
| Toxicity to algae/aquatic plants | : | ErC50 (Desmodesmus subspicatus (green algae)): 119.4 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 |
| | | EC10 (Desmodesmus subspicatus (green algae)): 60 mg/l |



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| | | | Exposure time: 72 Method: OECD Te | |
| Toxici icity) | ty to fish (Chronic tox- | : | NOEC (Oncorhyn Exposure time: 28 Method: OECD Te | |
| | ty to daphnia and other c invertebrates (Chron- city) | | NOEC (Daphnia r Exposure time: 22 | nagna (Water flea)): 1 mg/l 2 d |
| Toxici | ty to microorganisms | : | NOEC (Pseudome Exposure time: 16 Method: DIN 38 4 | |
| Gluco | pyranose, oligomeric | C10 |)-16 glycosides: | |
| | ty to fish | : | | (zebra fish)): 2.95 mg/l S h |
| | ty to daphnia and other c invertebrates | : | EC50 (Daphnia m Exposure time: 48 | agna (Water flea)): 7 mg/l 3 h |
| Toxici plants | ty to algae/aquatic | : | EC50 (Desmodes Exposure time: 72 | mus subspicatus (green algae)): 12.5 mg/l 2 h |
| Toxici icity) | ty to fish (Chronic tox- | : | NOEC (Danio reri Exposure time: 28 Method: OECD Te | |
| | c invertebrates (Chron- | : | EC10 (Daphnia m Exposure time: 21 | agna (Water flea)): 1.76 mg/l I d |
| Toxici | ty to microorganisms | : | EC0 (Pseudomon Exposure time: 16 Method: DIN 38 4 | |
| Orang | ge, sour, extract: | | | |
| Toxici | ty to daphnia and other c invertebrates | : | Exposure time: 48 | Vater Accommodated Fraction |
| Toxici plants | ty to algae/aquatic | : | Exposure time: 72 | Vater Accommodated Fraction |
| | | | mg/l Exposure time: 72 | Vater Accommodated Fraction |



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|---|--|-----|---|---|--|--|--|
| (R)-p- | mentha-1,8-diene: | | | | | | |
| Toxicity to fish | | : | LC50 (Pimephales Exposure time: 96 | s promelas (fathead minnow)): 702 μg/l δ h | | | |
| Toxicity to daphnia and other aquatic invertebrates | | : | EC50 (Daphnia magna (Water flea)): 307 μg/l Exposure time: 48 h Method: OECD Test Guideline 202 | | | | |
| Toxicity to algae/aquatic plants | | : | ErC50 (Pseudokirchneriella subcapitata (green algae)): 0.32 mg/l Exposure time: 72 h Method: OECD Test Guideline 201 | | | | |
| | | | EC10 (Pseudokiro mg/l Exposure time: 72 Method: OECD Te | | | | |
| | ty to daphnia and other ic invertebrates (Chron- city) | : | EC10 (Daphnia m Exposure time: 21 Method: OECD Te | | | | |
| Toxici | ty to microorganisms | : | EC50: > 100 mg/l Exposure time: 3 Method: OECD Te Remarks: Based of | h | | | |
| Titani | um dioxide: | | | | | | |
| | ty to fish | : | LC50 (Oncorhync Exposure time: 96 Method: OECD Te | | | | |
| | ty to daphnia and other ic invertebrates | : | EC50 (Daphnia m Exposure time: 48 | agna (Water flea)): > 100 mg/l } h | | | |
| Toxici plants | ty to algae/aquatic | : | EC50 (Skeletonema costatum (marine diatom)): > 10 Exposure time: 72 h | | | | |
| Toxici | ty to microorganisms | : | EC50: > 1,000 mg/l Exposure time: 3 h Method: OECD Test Guideline 209 | | | | |
| Persis | stence and degradabili | ity | | | | | |
| Comp | oonents: | | | | | | |
| | decanol, ethoxylated: gradability | : | | | | | |

Sulfonic acids, C14-17-sec-alkane, sodium salts:



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|------------|--------------------|-------------------------------|------|---|---|--|--|
| | Biodegradability | | : | Result: Readily biodegradable. Biodegradation: 78 % Exposure time: 28 d Method: OECD Test Guideline 301B | | | |
| | Gluco | pyranose, oligomeric | C10 |)-16 glycosides: | | | |
| | Biodeg | radability | : | Result: Readily bi Biodegradation: & Exposure time: 28 Method: OECD Te | 38 % | | |
| | Orang | e, sour, extract: | | | | | |
| | - | radability | : | Result: Readily bio Remarks: Based o | odegradable. on data from similar materials | | |
| | (R)-p-r | nentha-1,8-diene: | | | | | |
| | | radability | : | Result: Readily bi Biodegradation: 7 Exposure time: 28 Method: OECD Te | 71.4 % | | |
| | | | | | | | |
| | Bioaco | cumulative potential | | | | | |
| | Components: | | | | | | |
| | Sulfon | ic acids, C14-17-sec- | alka | ne, sodium salts: | | | |
| | Partitic octano | on coefficient: n- I/water | : | log Pow: 0.2 | | | |
| | Orang | e, sour, extract: | | | | | |
| | Partitic | on coefficient: n- I/water | : | log Pow: > 4 Remarks: Calcula | tion method | | |
| | (R)-p-r | nentha-1,8-diene: | | | | | |
| | Partitic | n coefficient: n- I/water | : | log Pow: 4.38 | | | |
| | Mohili | ty in soil | | | | | |
| | | a available | | | | | |
| | Other | adverse effects | | | | | |
| | No dat | a available | | | | | |
| SEC | CTION 1 | 3. DISPOSAL CONSI | DER | ATIONS | | | |
| | Dispos | sal methods | | | | | |
| | Waste | from residues | : | Dispose of in acco | ordance with local regulations. | | |
| | Contar | ninated packaging | : | Empty containers dling site for recyc | should be taken to an approved waste han- cling or disposal. | | |





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| | | If not otherwise | e specified: Dispose of as unused product. |
| ECTION | 14. TRANSPORT IN | FORMATION | |
| Interr | national Regulations | ; | |
| UNRT Not re | DG egulated as a dangero | ous good | |
| IATA- Not re | DGR egulated as a dangero | ous good | |
| | -Code egulated as a dangero | ous good | |
| | sport in bulk accordi | - | RPOL 73/78 and the IBC Code |
| Natio | nal Regulations | | |
| | | | |
| ADG Not re | egulated as a dangero | ous good | |
| Not re | 15. REGULATORY I | NFORMATION | logiclation apositic for the substance or mi |
| Not re ECTION Safety ture Stand | 15. REGULATORY I | NFORMATION nmental regulations/ : Schedule 6 | legislation specific for the substance or mi |
| Not re ECTION Safety ture Stand | 15. REGULATORY II y, health and environ ard for the Uniform duling of Medicines ar | NFORMATION nmental regulations/ : Schedule 6 | legislation specific for the substance or mi |
| Not re ECTION Safety ture Stand Scheo Poiso | 15. REGULATORY II y, health and environ ard for the Uniform duling of Medicines ar | NFORMATION nmental regulations/ : Schedule 6 nd | : There is no applicable prohibition, authorisation and restricted use |
| Not re ECTION Safety ture Stand Schec Poison | 15. REGULATORY II y, health and environ ard for the Uniform duling of Medicines ar ns | NFORMATION nmental regulations/ : Schedule 6 nd irements s : Directive 2010 emissions (inte | : There is no applicable prohibition, authorisation and restricted use requirements, including for carcino- gens referred to in Schedule 10 of the model WHS Act and Regula- |
| Not re ECTION Safety ture Stand Schec Poison Prohit | 15. REGULATORY I y, health and environ and for the Uniform duling of Medicines ar ns bition/Licensing Requ | NFORMATION nmental regulations/ : Schedule 6 nd irements s : Directive 2010 emissions (inte Volatile organi | There is no applicable prohibition, authorisation and restricted use requirements, including for carcino- gens referred to in Schedule 10 of the model WHS Act and Regula- tions. /75/EU of 24 November 2010 on industrial egrated pollution prevention and control) |

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|------------|---|------------------------------|-----|--|---|
| | Sources of key data used to compile the Safety Data Sheet | | : | Internal technical data, data from raw material SDSs, OECI eChem Portal search results and European Chemicals Age cy, http://echa.europa.eu/ | |
| | Date format | | : | dd.mm.yyyy | |
| | Full tex | t of other abbreviation | ons | | |
| | ACGIH AU OEL | | : | USA. ACGIH Threshold Limit Values (TLV) Australia. Workplace Exposure Standards for Airborne Co taminants. | |
| | ACGIH AU OE | / TWA L / TWA | : | 8-hour, time-weig Exposure standar | hted average d - 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 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; 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

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 is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.



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