| | |
|---|---|
| Substance key: 000000632937 | Revision Date: 09/27/2017 |
| Version : 2 - 0 / USA | Date of printing :04/17/2019 |

## SECTION 1. IDENTIFICATION

| | |
|---|---|
| **Identification of the company:** | Clariant Plastics & Coating USA LLC<br>4000 Monroe Road<br>Charlotte, NC, 28205<br>Telephone No.: +1 704 331 7000<br><br>**Information of the substance/preparation:**<br>Product Stewardship, +1-704-331-7710<br><br>**Emergency tel. number:** +1 800-424-9300 CHEMTREC |

| | |
|---|---|
| **Trade name:** | **AddWorks LXR 313** |
| **Material number:** | 299501 |
| **Primary product use:** | Class of additive: Light stabilizer |
| **Chemical family:** | mixture of light stabilizers and UV absorbers |

## SECTION 2. HAZARDS IDENTIFICATION

**GHS classification in accordance with 29 CFR 1910.1200**

Flammable liquids : Category 3

Skin irritation : Category 2

**GHS label elements**

Hazard pictograms :

Signal word : Warning

Hazard statements : H226 Flammable liquid and vapour.
H315 Causes skin irritation.

Precautionary statements :

**Prevention:**

P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.

**Response:**

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
P362 Take off contaminated clothing and wash before reuse.
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage:**

P403 + P235 Store in a well-ventilated place. Keep cool.

**Disposal:**

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

**Other hazards**

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Substance name : mixture of light stabilizers and UV absorbers

**Hazardous components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---|---|---|
| Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate | Not Assigned | 30 - 50 |
| 2-Methoxy-1-methyl ethyl acetate | 108-65-6 | 10 - 20 |
| 1-Methoxy-2-propanol | 107-98-2 | 5 - 10 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

## SECTION 4. FIRST AID MEASURES

General advice : Get medical advice/ attention if you feel unwell.

If inhaled : Move the victim to fresh air.
Give oxygen or artificial respiration if needed.
Get immediate medical advice/ attention.
Never give anything by mouth to an unconscious person.

In case of skin contact : Wash thoroughly with soap and water for 15 minutes. If skin irritation occurs, seek medical attention.

In case of eye contact : Flush eyes with water at least 15 minutes. Get medical attention if eye irritation develops or persists.

| | | |
|---|---|---|
| If swallowed | : | If conscious, give the victim plenty of water to drink.<br>Consult a physician.<br>Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | The possible symptoms known are those derived from the labelling (see section 2).<br>No additional symptoms are known. |
| Notes to physician | : | Treat symptomatically. |

## SECTION 5. FIREFIGHTING MEASURES

| | | |
|---|---|---|
| Suitable extinguishing media | : | Water spray<br>Carbon dioxide (CO2)<br>Foam<br>Dry chemical |
| Unsuitable extinguishing media | : | High volume water jet |
| Specific hazards during firefighting | : | None known. |
| Further information | : | Wear suitable protective equipment. |
| Special protective equipment for firefighters | : | Wear personal protective equipment.<br>In the event of fire, wear self-contained breathing apparatus. |

## SECTION 6. ACCIDENTAL RELEASE MEASURES

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Wear suitable protective equipment. |
| Environmental precautions | : | The product should not be allowed to enter drains, water courses or the soil. |
| Methods and materials for containment and cleaning up | : | Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).<br>Treat recovered material as described in the section "Disposal considerations". |

## SECTION 7. HANDLING AND STORAGE

| | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Observe the general rules of industrial fire protection |
| Advice on safe handling | : | Wear suitable protective equipment.<br>Keep container closed when not in use. |

Do not breathe vapour.
Avoid contact with skin and eyes.

Technical measures/Precautions : Store in original container.
Keep container tightly closed.
Store in a cool, dry, well-ventilated area.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|---|---|---|---|
| 2-Methoxy-1-methyl ethyl acetate | 108-65-6 | TWA | 50 ppm | US WEEL |
| 1-Methoxy-2-propanol | 107-98-2 | TWA | 50 ppm | ACGIH |
| | | STEL | 100 ppm | ACGIH |
| | | ST | 150 ppm<br>540 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm<br>360 mg/m3 | NIOSH REL |
| | | TWA | 100 ppm<br>360 mg/m3 | OSHA P0 |
| | | STEL | 150 ppm<br>540 mg/m3 | OSHA P0 |

**Hazardous components without workplace control parameters**

| Components | CAS-No. |
|---|---|
| Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate | Not Assigned |

**Personal protective equipment**

Respiratory protection : Use NIOSH/MSHA approved respirators following manufacturer's recommendations where dust or fume may be generated.

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

Hand protection
Remarks : Nitrile rubber gloves. Minimum breakthrough time (glove): not determined Minimum thickness (glove): not determined Take note of the information given by the producer concerning permeability and break through times, and of special workplace conditions (mechanical strain, duration of contact).

Butyl Rubber, PVC Or Neoprene.

| | | |
|---|---|---|
| Eye protection | : | Safety glasses or chemical splash goggles. |
| Skin and body protection | : | Wear suitable protective equipment. |
| Protective measures | : | Observe the usual precautions for handling chemicals. |
| Hygiene measures | : | Wash hands before breaks and at the end of workday.<br>When using do not eat, drink or smoke.<br>Use protective skin cream before handling the product. |

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Appearance | : | Liquid |
| Colour | : | transparent, yellow |
| Odour | : | solvent-like |
| Odour Threshold | : | not determined |
| pH | : | Not applicable |
| Melting point | : | Not applicable |
| Boiling point | : | 120 °C<br>Method: OECD Test Guideline 103<br>Data relate to solvent |
| Flash point | : | 47 °C<br>Method: DIN EN ISO 3679 (closed cup) |
| Evaporation rate | : | not tested. |
| Flammability (liquids) | : | Flammable liquid |
| Self-ignition | : | Method: Expert judgement<br>The substance or mixture is not classified as pyrophoric. |
| Burning number | : | Not applicable |
| Upper explosion limit / upper flammability limit | : | not tested. |
| Lower explosion limit / Lower flammability limit | : | not tested. |
| Vapour pressure | : | not tested. |
| Relative vapour density | : | not tested. |

| | | |
|---|---|---|
| Density | : | 0.99 g/cm3 (40 °C)<br>Method: DIN EN ISO 15212-1 |
| Solubility(ies) | | |
| Water solubility | : | miscible |
| Partition coefficient: n-octanol/water | : | Not applicable |
| Auto-ignition temperature | : | 390 °C |
| Decomposition temperature | : | The substance or mixture is not classified self-reactive. |
| Viscosity | | |
| Viscosity, dynamic | : | 165.6 mPa.s (40 °C) |
| Viscosity, kinematic | : | 165.7 mm2/s (40 °C)<br>Method: ISO 3104 |
| Explosive properties | : | Not explosive<br>Method: Expert judgement |
| Oxidizing properties | : | The substance or mixture is not classified as oxidizing.<br>Method: Expert judgement<br>The product does not contain organic peroxide-groups which result from either the manufacturing process or from added ingredients. |
| Dust explosion class | : | not capable of dust explosion |

## SECTION 10. STABILITY AND REACTIVITY

| | | |
|---|---|---|
| Reactivity | : | No dangerous reaction known under conditions of normal use. |
| Chemical stability | : | Stable under normal conditions. |
| Possibility of hazardous reactions | : | The substance or mixture does not emit flammable gases in contact with water.<br>Not corrosive to metals |
| Conditions to avoid | : | Keep away from heat and sources of ignition. |
| Incompatible materials | : | not known |
| Hazardous decomposition products | : | no data available |

## SECTION 11. TOXICOLOGICAL INFORMATION

**Information on likely routes of exposure**

Skin contact

**Acute toxicity**

**Product:**

| | | |
|---|---|---|
| Acute oral toxicity | : | Acute toxicity estimate: > 5,000 mg/kg<br>Method: Calculation method |
| Acute inhalation toxicity | : | Remarks: not tested. |
| Acute dermal toxicity | : | Acute toxicity estimate: 4,348 mg/kg<br>Method: Calculation method |

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): > 5,000 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: no<br><br>LD50 (Rat): > 2,000 mg/kg |
| Acute inhalation toxicity | : | Remarks: not tested. |
| Acute dermal toxicity | : | LD50 (Rats (Male/Female)): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes |

**2-Methoxy-1-methyl ethyl acetate:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 6,190 mg/kg<br>Method: OECD Test Guideline 401<br>GLP: yes |
| Acute inhalation toxicity | : | LC50 (Mouse, male): 10.8 mg/l, 2000 ppm<br>Exposure time: 3 h<br>Method: Other<br>GLP: yes |
| Acute dermal toxicity | : | LD50 (Rat, male and female): > 2,000 mg/kg<br>Method: OECD Test Guideline 402<br>GLP: yes |

**1-Methoxy-2-propanol:**

| | | |
|---|---|---|
| Acute oral toxicity | : | LD50 (Rat, male and female): 4,016 mg/kg<br>Method: EC Directive 92/69/EEC B.1 Acute Toxicity (Oral)<br>GLP: yes |
| Acute inhalation toxicity | : | LC50 (Rat, male and female): > 26 mg/l<br>Exposure time: 4 h<br>Method: OECD Test Guideline 403<br>GLP: yes |
| Acute dermal toxicity | : | LD50 (Rat, male and female): > 2,000 mg/kg |

Method: Tested according to Directive 92/69/EEC.
GLP: yes

**Skin corrosion/irritation**

**Product:**

Result: Irritating to skin.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: irritating
GLP: yes

**2-Methoxy-1-methyl ethyl acetate:**

Species: Rabbit
Exposure time: 4 h
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

**1-Methoxy-2-propanol:**

Species: Rabbit
Exposure time: 4 h
Method: Tested according to Directive 92/69/EEC.
Result: No skin irritation
GLP: yes

**Serious eye damage/eye irritation**

**Product:**

Remarks: not tested.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Species: Rabbit
Result: No eye irritation
Exposure time: 72 h
Method: OECD Test Guideline 405
GLP: no

**2-Methoxy-1-methyl ethyl acetate:**

Species: rabbit eye
Result: No eye irritation

Method: OECD Test Guideline 405
GLP: yes

**1-Methoxy-2-propanol:**

Species: rabbit eye
Result: No eye irritation
Method: Tested according to Directive 92/69/EEC.
GLP: yes

**Respiratory or skin sensitisation**

**Product:**

Result: Did not cause sensitisation on laboratory animals.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Test Type: Maurer optimisation test
Species: Guinea pig
Method: OECD Test Guideline 406
Result: non-sensitizing
GLP: yes

**2-Methoxy-1-methyl ethyl acetate:**

Test Type: Guinea pig maximization test
Exposure routes: Skin contact
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: yes

**1-Methoxy-2-propanol:**

Test Type: Guinea pig maximization test
Exposure routes: Skin contact
Species: Guinea pig
Method: Tested according to Directive 92/69/EEC.
Result: Does not cause skin sensitisation.
GLP: yes

**Germ cell mutagenicity**

**Product:**

Germ cell mutagenicity - Assessment : No information available.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Concentration: 1,58 - 5000 µg/plate<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative<br>GLP: yes |
| Genotoxicity in vivo | : | Test Type: Micronucleus test<br>Species: Mouse (male and female)<br>Cell type: Bone marrow cells<br>Application Route: oral (gavage)<br>Exposure time: 24 - 48 - 72 h<br>Dose: 5000 mg/kg<br>Method: OECD Test Guideline 474<br>Result: negative<br>GLP: yes |
| Germ cell mutagenicity - Assessment | : | Not mutagenic in Ames Test<br><br>In vivo Micronucleus negative. |

**2-Methoxy-1-methyl ethyl acetate:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Concentration: 100 - 50000 µg/plate<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative<br>GLP: yes<br><br>Test Type: DNA damage and repair assay<br>Test system: rat hepatocytes<br>Concentration: 0,0316 - 100 mM<br>Metabolic activation: without<br>Method: OECD Test Guideline 482<br>Result: negative<br>GLP: yes<br><br>Test Type: In vitro gene mutation study in mammalian cells<br>Test system: Chinese hamster lung cells<br>Concentration: 14 - 55 mM<br>Metabolic activation: without<br>Method: OECD Test Guideline 476<br>Result: negative<br>GLP: No information available.<br>Remarks: By analogy with a product of similar composition |
| Germ cell mutagenicity - Assessment | : | It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests. |

**1-Methoxy-2-propanol:**

| | | |
|---|---|---|
| Genotoxicity in vitro | : | Test Type: Ames test<br>Test system: Salmonella typhimurium<br>Concentration: 2 - 6250 µg/plate<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 471<br>Result: negative<br>GLP: yes<br><br>Test Type: Chromosome aberration test in vitro<br>Test system: Chinese hamster ovary cells<br>Concentration: 1,25 - 10 mg/ml<br>Metabolic activation: with and without metabolic activation<br>Method: OECD Test Guideline 473<br>Result: negative<br>GLP: yes<br><br>Test Type: In vitro gene mutation study in mammalian cells<br>Test system: Chinese hamster lung cells<br>Concentration: 14 - 55 mM<br>Metabolic activation: without<br>Method: OECD Test Guideline 476<br>Result: negative<br>GLP: No information available. |
| Genotoxicity in vivo | : | Test Type: Micronucleus test<br>Species: Mouse (male and female)<br>Strain: CD1<br>Cell type: Bone marrow<br>Application Route: Intraperitoneal injection<br>Exposure time: single injection<br>Dose: 2500-4000-5000-6000 mg/kg<br>Method: OECD Test Guideline 474<br>Result: negative<br>GLP: yes |
| Germ cell mutagenicity - Assessment | : | It is concluded that the product is not mutagenic based on evaluation of several mutagenicity tests. |

**Carcinogenicity**

**Product:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | No information available. |

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

| | | |
|---|---|---|
| Carcinogenicity - Assessment | : | No information available. |

**2-Methoxy-1-methyl ethyl acetate:**

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

**1-Methoxy-2-propanol:**

Carcinogenicity - Assessment : Did not show carcinogenic effects in animal experiments.

**IARC** Not listed

**OSHA** Not listed

**NTP** Not listed

**Reproductive toxicity**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Effects on fertility : Remarks: This information is not available.

Effects on foetal development : Remarks: This information is not available.

Reproductive toxicity - Assessment : No information available.

No information available.

**2-Methoxy-1-methyl ethyl acetate:**

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 300 - 1000 - 3000 ppm
Duration of Single Treatment: 6 h
General Toxicity - Parent: NOAEL: ca. 1.6 mg/l
General Toxicity F1: NOAEL: ca. 5.5 mg/l
General Toxicity F2: NOAEL: ca. 5.5 mg/l
Method: OECD Test Guideline 416
GLP: yes
Remarks: By analogy with a product of similar composition

Effects on foetal development : Species: Rat
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 500 - 2000 - 4000 ppm
Duration of Single Treatment: 6 h
General Toxicity Maternal: NOAEL: 2.7 mg/l
Teratogenicity: NOAEL: > 22.5 mg/l
Method: OECD Test Guideline 414

GLP: yes

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

**1-Methoxy-2-propanol:**

Effects on fertility : Test Type: Two-generation study
Species: Rat, male and female
Strain: Sprague-Dawley
Application Route: Inhalation
Dose: 300 - 1000 - 3000 ppm
Duration of Single Treatment: 6 h
Frequency of Treatment: 5 - 7 days/week
General Toxicity - Parent: NOAEL: ca. 1.1 mg/l
General Toxicity F1: NOAEL: ca. 3.7 mg/l
General Toxicity F2: NOAEL: ca. 3.7 mg/l
Method: OECD Test Guideline 416
GLP: yes

Effects on foetal development : Species: Rat
Strain: Fischer F344
Application Route: Inhalation
Dose: 500 - 1500 - 3000 ppm
Duration of Single Treatment: 6 h
General Toxicity Maternal: NOAEL: ca. 5.6 mg/l
Teratogenicity: NOAEL: ca. 5.6 mg/l
Method: OECD Test Guideline 414
GLP: yes

Reproductive toxicity - Assessment : No reproductive toxicity to be expected.
No teratogenic effects to be expected.

**STOT - single exposure**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Remarks: not available

**2-Methoxy-1-methyl ethyl acetate:**

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

**1-Methoxy-2-propanol:**

Assessment: May cause drowsiness or dizziness.

**STOT - repeated exposure**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Remarks: not available

**2-Methoxy-1-methyl ethyl acetate:**

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

**1-Methoxy-2-propanol:**

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

**Repeated dose toxicity**

**Product:**

Remarks: not tested.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Species: Rats (Male/Female)
NOAEL: 200 mg/kg
Application Route: oral (gavage)
Exposure time: 28 days
Dose: 40 - 200 - 1000 mg/kg
Method: Repeated Dose Toxicity (subacute study)
GLP: yes

**2-Methoxy-1-methyl ethyl acetate:**

Species: Rat, male and female
NOAEL: >= 1,000 mg/kg
Application Route: oral (gavage)
Exposure time: 44 d (m), 41-45 d (f)
Number of exposures: daily
Dose: 100 - 300 - 1000 mg/kg
Group: yes
Method: OECD Test Guideline 422
GLP: No information available.

Species: Rat, male and female
NOAEL: ca. 5.5 mg/l
Application Route: Inhalation
Exposure time: 91 d
Number of exposures: 6 hours/day, 5 days/week
Dose: 300 - 1000 - 3000 ppm
Group: yes

Method: OECD Test Guideline 413
GLP: yes
Remarks: By analogy with a product of similar composition

Species: Rabbit, male and female
NOAEL: > 1,000 mg/kg
Application Route: Skin contact
Exposure time: 3 w
Number of exposures: 5 days/week
Dose: 1000 mg/kg
Method: OECD Test Guideline 410
GLP: yes
Remarks: By analogy with a product of similar composition

**1-Methoxy-2-propanol:**

Species: Rat, male
NOAEL: 919 mg/kg
LOAEL: 2,757 mg/kg
Application Route: oral (gavage)
Exposure time: 35 d
Number of exposures: 5 days/week
Dose: 91,9-275,7-919-2757 mg/kg
Group: yes
Method: OECD Test Guideline 407
GLP: no

Species: Rat, male and female
NOAEL: ca. 3.7 mg/l
Application Route: Inhalation
Exposure time: 13 w
Number of exposures: 6 hours/day, 5 days/week
Dose: 300 - 1000 - 3000 ppm
Group: yes
Method: OECD Test Guideline 413
GLP: yes

Species: Rabbit, male and female
NOAEL: > 1,000 mg/kg
Application Route: Skin contact
Exposure time: 21 d
Number of exposures: 15 applications
Dose: 1000 mg/kg
Group: yes
Method: OECD Test Guideline 410
GLP: yes

**Aspiration toxicity**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

No aspiration toxicity classification

**2-Methoxy-1-methyl ethyl acetate:**
No aspiration toxicity classification

**1-Methoxy-2-propanol:**
No aspiration toxicity classification

**Experience with human exposure**

**Product:**

General Information : The possible symptoms known are those derived from the labelling (see section 2).

**Further information**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**
Remarks: Can be absorbed through skin.

## SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Product:**

Toxicity to fish : Remarks: not tested.

Toxicity to daphnia and other aquatic invertebrates : Remarks: not tested.

Toxicity to algae : Remarks: not tested.

Toxicity to microorganisms : Remarks: not tested.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Toxicity to fish : LC50 (Cyprinus carpio (Carp)): 2 mg/l
Exposure time: 96 h
Test Type: static test
Method: Directive 67/548/EEC, Annex V, C.1.
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 131.7 mg/l
Exposure time: 24 h

Method: OECD Test Guideline 202
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to algae : Exposure time:
Remarks: not tested.

Toxicity to fish (Chronic toxicity) : Remarks: not tested.

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : Remarks: not tested.

Toxicity to microorganisms : EC50 (activated sludge, domestic): > 1,000 mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 3 h
Test Type: aquatic
Method: OECD Test Guideline 209

Toxicity to soil dwelling organisms : Test Type: artificial soil
LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg
Exposure time: 14 d
End point: mortality
Method: OECD Test Guideline 207
GLP: yes

Test Type: artificial soil
LOEC (Eisenia fetida (earthworms)): 1,000 mg/kg
Exposure time: 14 d
End point: mortality
Method: OECD Test Guideline 207
GLP: yes

Test Type: artificial soil
NOEC (Eisenia fetida (earthworms)): 500 mg/kg
Exposure time: 14 d
End point: mortality
Method: OECD Test Guideline 207
GLP: yes

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

**2-Methoxy-1-methyl ethyl acetate:**

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 100 - 180 mg/l
Exposure time: 96 h
Test Type: static test

Analytical monitoring: no
Method: OECD Test Guideline 203
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 500 mg/l
Exposure time: 48 h
Test Type: static test
Analytical monitoring: no
Method: Directive 67/548/EEC, Annex V, C.2.
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (green algae)): > 1,000 mg/l
End point: Growth rate
Exposure time: 96 h
Test Type: static test
Analytical monitoring: yes
Method: OECD Test Guideline 201
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to fish (Chronic toxicity) : NOEC (Oryzias latipes (Orange-red killifish)): 47.5 mg/l
Exposure time: 14 d
Test Type: flow-through test
Analytical monitoring: yes
Method: OECD Test Guideline 204
GLP: yes

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia magna (Water flea)): >= 100 mg/l
End point: Reproduction rate
Exposure time: 21 d
Test Type: semi-static test
Analytical monitoring: yes
Method: OECD Test Guideline 211
GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to microorganisms : EC10 (activated sludge, industrial): > 1,000 mg/l
End point: Bacteria toxicity (respiration inhibition)
Exposure time: 0.5 h
Test Type: aquatic
Analytical monitoring: no
Method: OECD Test Guideline 209
GLP: no
Remarks: The details of the toxic effect relate to the nominal concentration.

| | | |
|---|---|---|
| Toxicity to soil dwelling organisms | : | Remarks: Not applicable |
| Plant toxicity | : | Remarks: Not applicable |
| Sediment toxicity | : | Remarks: Not applicable |
| Toxicity to terrestrial organisms | : | Remarks: Not applicable |

**1-Methoxy-2-propanol:**

| | | |
|---|---|---|
| Toxicity to fish | : | LC50 (Oncorhynchus mykiss (rainbow trout)): >= 1,000 mg/l<br>Exposure time: 96 h<br>Test Type: semi-static test<br>Analytical monitoring: no data available<br>Method: OECD Test Guideline 203<br>GLP: No information available.<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to daphnia and other aquatic invertebrates | : | LC50 (Daphnia magna (Water flea)): 21,100 - 25,900 mg/l<br>Exposure time: 48 h<br>Test Type: static test<br>Analytical monitoring: no data available<br>Method: Other<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to algae | : | EC50 (Scenedesmus capricornutum (fresh water algae)): > 1,000 mg/l<br>End point: Growth rate<br>Exposure time: 7 d<br>Test Type: static test<br>Analytical monitoring: no data available<br>Method: Other<br>GLP: yes<br>Remarks: The details of the toxic effect relate to the nominal concentration. |
| Toxicity to fish (Chronic toxicity) | : | Remarks: not required |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | Remarks: not required |
| Toxicity to microorganisms | : | IC50 (activated sludge): > 1,000 mg/l<br>End point: Bacteria toxicity (respiration inhibition)<br>Exposure time: 3 h<br>Test Type: aquatic<br>Analytical monitoring: no data available<br>Method: OECD Test Guideline 209 |

GLP: yes
Remarks: The details of the toxic effect relate to the nominal concentration.

Toxicity to soil dwelling organisms : Remarks: Not applicable

Plant toxicity : Remarks: Not applicable

Sediment toxicity : Remarks: Not applicable

Toxicity to terrestrial organisms : Remarks: Not applicable

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: This property is substance-specific and therefore cannot be given for the preparation.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Biodegradability : Inoculum: domestic sewage
Concentration: 169 mg/l
COD decrease
Result: Not biodegradable
Biodegradation: 0 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: no
Remarks: Not readily biodegradable.

Biochemical Oxygen Demand (BOD) : 159 mg/g
Incubation time: 5 d
Method: Other
GLP: no

Chemical Oxygen Demand (COD) : 1,950 mg/g
Method: Other
GLP: no

BOD/COD : BOD: 159 mg/g (BOD5)COD: 1950 mg/gBOD/COD: 8.2 %

Physico-chemical removability : Remarks: Not readily biodegradable.

**2-Methoxy-1-methyl ethyl acetate:**

Biodegradability : aerobic
Inoculum: activated sludge, domestic, non-adapted
Concentration: 76,4 mg ThOD/l

CO2 formation in % of theoretical value
Result: Readily biodegradable.
Biodegradation: 90 %
Exposure time: 28 d
Method: OECD Test Guideline 301F
GLP: yes

Stability in water : Test Type: abiotic
Degradation half life (Aqueous buffer solution.): > 10 d (50 °C)
pH: 4
Method: OECD Test Guideline 111
GLP: No information available.

Test Type: abiotic
Degradation half life (Aqueous buffer solution.): > 10 d (50 °C)
pH: 7
Method: OECD Test Guideline 111
GLP: No information available.

Test Type: abiotic
Degradation half life (Aqueous buffer solution.): 8.1 d (50 °C)
pH: 9
Method: OECD Test Guideline 111
GLP: No information available.

**1-Methoxy-2-propanol:**

Biodegradability : aerobic
Inoculum: predominantly domestic sewage
Concentration: 86 mg/l
DOC decrease
Result: Readily biodegradable.
Biodegradation: 96 %
Exposure time: 28 d
Method: OECD Test Guideline 301E
GLP: yes

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: not tested.

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Bioaccumulation : Remarks: not tested.

Partition coefficient: n-octanol/water : Remarks: Not applicable

**2-Methoxy-1-methyl ethyl acetate:**

Bioaccumulation : Remarks: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

**1-Methoxy-2-propanol:**

Bioaccumulation : Remarks: Due to the low logPow bioaccumulation is not expected

**Mobility in soil**

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Distribution among environmental compartments : Remarks: not tested.

**2-Methoxy-1-methyl ethyl acetate:**

Distribution among environmental compartments : Remarks: Not applicable

**1-Methoxy-2-propanol:**

Distribution among environmental compartments : Remarks: Not applicable

**Other adverse effects**

**Product:**

Environmental fate and pathways : Remarks: no data available

Additional ecological information : no data available

**Components:**

**Mixture of dodecyl and tetradecyl 3-(2,2,4,4-tetramethyl-21-oxo-7-oxa-3 ,20-diazadispiro(5.1.11.2) henicosan-20-yl)propionate:**

Environmental fate and pathways : no data available

Results of PBT and vPvB assessment : Remarks: no data available

Additional ecological information : The product should not be allowed to enter drains, water courses or the soil.

**2-Methoxy-1-methyl ethyl acetate:**

Environmental fate and pathways : not available

| | | |
|---|---|---|
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). |
| Additional ecological information | : | The product should not be allowed to enter drains, water courses or the soil. |

**1-Methoxy-2-propanol:**

| | | |
|---|---|---|
| Environmental fate and pathways | : | not available |
| Results of PBT and vPvB assessment | : | This substance is not considered to be persistent, bioaccumulating and toxic (PBT). |
| Additional ecological information | : | Do not allow to enter ground water, waterways or waste water. |

## SECTION 13. DISPOSAL CONSIDERATIONS

**Disposal methods**

| | | |
|---|---|---|
| RCRA - Resource Conservation and Recovery Authorization Act | : | Yes -- If it becomes a waste as sold. |
| Waste Code | : | D001 |
| Waste from residues | : | Small quantities may be treated in aerobic wastewater treatment systems. Larger quantities may be incinerated or landfilled after solidification in permitted systems. |
| Contaminated packaging | : | Packaging that cannot be cleaned should be disposed of as product waste |

## SECTION 14. TRANSPORT INFORMATION

**DOT Regulation:**

| | |
|---|---|
| Proper shipping name: | Flammable liquids, n.o.s. |
| Hazard class: | 3 |
| Packing group: | III |
| UN/NA-number: | UN 1993 |
| Primary hazard class: | 3 |
| Technical Name: | 2-Methoxy-1-methylethyl acetate<br>Propionic acid ester derivatives |
| Emergency Response Guide: | 128 |

**IATA**

| | |
|---|---|
| Proper shipping name: | Flammable liquid, n.o.s. |
| Class: | 3 |
| Packing group: | III |
| UN/ID number: | UN 1993 |

| | |
|---|---|
| Primary risk: | 3 |
| Remarks: | Shipment permitted |
| Hazard inducer(s): | 2-Methoxy-1-methylethyl acetate<br>Propionic acid ester derivatives |

**IMDG**

| | |
|---|---|
| Proper shipping name: | Flammable liquid, n.o.s. |
| Class: | 3 |
| Packing group: | III |
| UN no.: | UN 1993 |
| Primary risk: | 3 |
| Hazard inducer(s): | 2-Methoxy-1-methylethyl acetate<br>Propionic acid ester derivatives |
| Hazard inducer / Marine pollutant: | Propionic acid ester derivatives |
| Marine pollutant: | Marine Pollutant |
| EmS: | F-E S-E |

## SECTION 15. REGULATORY INFORMATION

**EPCRA - Emergency Planning and Community Right-to-Know Act**

**CERCLA Reportable Quantity**

A characteristic waste RQ of 100 lbs applies to this product in a waste form: D001

**CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 311/312 Hazards** : Skin corrosion or irritation
Flammable (gases, aerosols, liquids, or solids)

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Water Act**

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

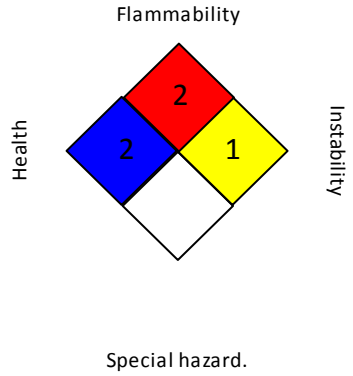
**The components of this product are reported in the following inventories:**

TSCA : On TSCA Inventory

## SECTION 16. OTHER INFORMATION

### Further information

**NFPA:**




### Full text of other abbreviations

| | | |
|---|---|---|
| ACGIH | : | USA. ACGIH Threshold Limit Values (TLV) |
| NIOSH REL | : | USA. NIOSH Recommended Exposure Limits |
| OSHA P0 | : | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| US WEEL | : | USA. Workplace Environmental Exposure Levels (WEEL) |
| ACGIH / TWA | : | 8-hour, time-weighted average |
| ACGIH / STEL | : | Short-term exposure limit |
| NIOSH REL / TWA | : | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL / ST | : | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| OSHA P0 / TWA | : | 8-hour time weighted average |
| OSHA P0 / STEL | : | Short-term exposure limit |
| US WEEL / TWA | : | 8-hr TWA |

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of

Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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