

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Heraeus

FLUX NC 5070, 5 G, 5 CC

Version
7.0

Revision Date:
27.02.2020

Date of last issue: 26.02.2020
Date of first issue: 26.11.2015

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name : FLUX NC 5070, 5 G, 5 CC

Product code : 81163285

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

Use of the Sub-
stance/Mixture : Industrial use, Electrical industry and electronics

1.3 Details of the supplier of the safety data sheet

Company : Heraeus Deutschland GmbH & Co. KG
Heraeusstr. 12-14
63450 Hanau

Telephone : +496181351

E-mail address of person
responsible for the SDS : sds@heraeus.com
(Heraeus Holding: EHS Chemical Safety)

1.4 Emergency telephone number

Emergency telephone num-
ber : +49 6132-84463
International Emergency Number
This telephone number is available 24 hours per day, 7 days
per week.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Serious eye damage, Category 1	H318: Causes serious eye damage.
Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.
H412 Harmful to aquatic life with long lasting effects.

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Precautionary statements :

Prevention:

P273 Avoid release to the environment.

P280 Wear eye protection/ face protection.

Response:

P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Disposal:

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

Hazardous components which must be listed on the label:

2-ethylhexane-1,3-diol

Ethoxylated coco alkyl amines

malonic acid

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature : Mixture

Hazardous components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
2-ethylhexane-1,3-diol	94-96-2 202-377-9 603-087-00-9	Eye Dam. 1; H318	>= 20 - < 30
Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-	9004-77-7 500-012-0	Eye Irrit. 2; H319	>= 10 - < 20
Ethoxylated coco alkyl amines	61791-14-8	Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	>= 3 - < 5
malonic acid	141-82-2 205-503-0	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 3 - < 5

The registration numbers listed here are valid if the company listed in Chapter 1 is located in the EU. For ingredients without a registration number there is no registration, because due to the annual amount no registration is required or the substance or its use according to Article 2 of the REACH Regulation (EC 1907/2006) is excluded from registration.

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For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

- | | |
|-------------------------|---|
| General advice | : First aider needs to protect himself.
Move out of dangerous area.
Show this safety data sheet to the doctor in attendance. |
| If inhaled | : Move to fresh air. |
| In case of skin contact | : Take off all contaminated clothing immediately.
Wash off with:
Polyethylene glycol 400. |
| In case of eye contact | : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Keep eye wide open while rinsing.
Protect unharmed eye.
Call a physician immediately. |
| If swallowed | : Immediately give large quantities of water to drink.
Do NOT induce vomiting. |

4.2 Most important symptoms and effects, both acute and delayed

- | | |
|-------|------------------------------|
| Risks | : Causes serious eye damage. |
|-------|------------------------------|

4.3 Indication of any immediate medical attention and special treatment needed

- | | |
|-----------|--------------------------|
| Treatment | : Treat symptomatically. |
|-----------|--------------------------|

SECTION 5: Firefighting measures

5.1 Extinguishing media

- | | |
|--------------------------------|--|
| Suitable extinguishing media | : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. |
| Unsuitable extinguishing media | : Water spray jet |

5.2 Special hazards arising from the substance or mixture

- | | |
|---------------------------------------|---|
| Specific hazards during fire-fighting | : Exposure to decomposition products may be a hazard to health. |
|---------------------------------------|---|

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Hazardous combustion products : Carbon oxides
Nitrogen oxides (NO_x)

5.3 Advice for firefighters

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

Further information : Use a water spray to cool fully closed containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions : Follow safe handling advice and personal protective equipment recommendations.
Ensure adequate ventilation.
Evacuate personnel to safe areas.
Refer to protective measures listed in sections 7 and 8.

6.2 Environmental precautions

Environmental precautions : Do not allow contact with soil, surface or ground water.
Do not let product enter drains.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4 Reference to other sections

See sections: 7, 8, 11, 12 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling : Provide sufficient air exchange and/or exhaust in work rooms.
Wear personal protective equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
Smoking, eating and drinking should be prohibited in the application area.

Hygiene measures : Keep away from food and drink. Wash hands before breaks and at the end of workday. Keep working clothes separately.
Remove and wash contaminated clothing and gloves, including the inside, before re-use.

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7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers : Keep tightly closed in a dry, cool and well-ventilated place.

Storage class (TRGS 510) : 10, Combustible liquids

7.3 Specific end use(s)

Specific use(s) : No data available

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
Rosin, hydrogenated	Workers	Inhalation	Long-term systemic effects	117 mg/m3
	Workers	Skin contact	Long-term systemic effects	17 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	35 mg/m3
	Consumers	Skin contact	Long-term systemic effects	10 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	10 mg/kg bw/day
2-ethylhexane-1,3-diol	Workers	Skin contact	Long-term systemic effects	76,3 mg/kg bw/day
	Workers	Skin contact	Acute systemic effects	228,9 mg/kg bw/day
	Consumers	Skin contact	Long-term systemic effects	38,2 mg/kg bw/day
	Consumers	Skin contact	Acute systemic effects	114,5 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	0,17 mg/kg bw/day
	Consumers	Ingestion	Acute systemic effects	0,51 mg/kg bw/day
Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-	Workers	Inhalation	Long-term systemic effects	195 mg/m3
	Workers	Skin contact	Long-term systemic effects	208 mg/kg bw/day
	Consumers	Inhalation	Long-term systemic effects	117 mg/m3
	Consumers	Skin contact	Long-term systemic effects	125 mg/kg bw/day
	Consumers	Ingestion	Long-term systemic effects	12,5 mg/kg bw/day

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Octadecanoic acid, 12-hydroxy-, reaction products with decanoic acid and ethylenediamine	Workers	Inhalation	Acute systemic effects	3 mg/m3
	Workers	Inhalation	Long-term local effects	3 mg/m3
	Workers	Inhalation	Acute local effects	3 mg/m3
	Workers	Skin contact	Long-term local effects	3,75 mg/cm2
	Workers	Skin contact	Acute local effects	11,2 mg/cm2
	Consumers	Skin contact	Long-term local effects	3,75 mg/cm2
	Consumers	Skin contact	Acute local effects	11,2 mg/cm2
	Consumers	Ingestion	Long-term systemic effects	0,56 mg/kg bw/day

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Rosin, hydrogenated	Fresh water	0,0016 mg/l
	Marine water	0,00016 mg/l
	Intermittent use/release	0,016 mg/l
	Sewage treatment plant	1000 mg/l
	Fresh water sediment	0,007 mg/kg
	Marine sediment	0,0007 mg/kg
	Soil	0,00045 mg/kg
2-ethylhexane-1,3-diol	Fresh water	0,1 mg/l
	Marine water	0,01 mg/l
	Sewage treatment plant	3 mg/l
	Fresh water sediment	1,6 mg/kg dry weight (d.w.)
	Marine sediment	0,16 mg/kg dry weight (d.w.)
	Soil	0,17 mg/kg dry weight (d.w.)
	Oral (Secondary Poisoning)	3,3 mg/kg food
Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-	Intermittent use/release	1 mg/l
	Fresh water	4,5 mg/l
	Marine water	0,31 mg/l
	Sewage treatment plant	500 mg/l
	Fresh water sediment	6,6 mg/kg
	Marine sediment	0,66 mg/kg
	Soil	1,02 mg/kg
Octadecanoic acid, 12-hydroxy-, reaction products with decanoic acid and ethylenediamine	Oral (Secondary Poisoning)	333 mg/kg food
	Fresh water	740 μ g/l
	Marine water	74 μ g/l
	Soil	3714,9 mg/kg
sebacic acid	Fresh water	0,018 mg/l
	Marine water	0,0018 mg/l

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	Intermittent use/release	0,18 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	0,547 mg/kg
	Marine sediment	0,0547 mg/kg
	Soil	0,0986 mg/kg dry weight (d.w.)

8.2 Exposure controls

Engineering measures

Provide sufficient air exchange and/or exhaust in work rooms.

Personal protective equipment

Eye protection : Safety glasses with side-shields

Hand protection

Remarks

: Before removing gloves clean them with soap and water. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. As the product is a mixture of several substances, the durability of the glove materials cannot be calculated in advance and has to be tested before use.

Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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

Filter type : Recommended Filter type:
Filter type ABEK-P

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance : paste
Colour : colourless
Odour : solvent-like
Odour Threshold : No data available

pH : 4,8 (25 °C)

Melting point/range : No data available

Boiling point/boiling range : 244 °C
(1.013 hPa)

Flash point : 113 °C(1.013 hPa)

Evaporation rate : No data available

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Flammability (solid, gas)	: Not applicable
Upper explosion limit / Upper flammability limit	: No data available
Lower explosion limit / Lower flammability limit	: No data available
Vapour pressure	: <= 1.100 hPa (50 °C)
Relative vapour density	: No data available
Relative density	: No data available
Density	: 1,025 g/cm ³ (23 °C, 1.013 hPa)
Solubility(ies)	
Water solubility	: insoluble (20 °C, 1.013 hPa)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	
Viscosity, dynamic	: No data available
Viscosity, kinematic	: > 40 mm ² /s (23 °C) > 20,5 mm ² /s (40 °C)
Explosive properties	: Not applicable
Oxidizing properties	: Not applicable

9.2 Other information

Self-ignition	: Not applicable
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SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

Hazardous reactions	: No dangerous reaction known under conditions of normal use.
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10.4 Conditions to avoid

Conditions to avoid : No data available

10.5 Incompatible materials

Materials to avoid : No data available

10.6 Hazardous decomposition products

No data available

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 2.000 mg/kg
Method: Calculation method

Components:

2-ethylhexane-1,3-diol:

Acute oral toxicity : LD50 (Rat): 4.636 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 3,8 mg/l
Exposure time: 4 h
Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rabbit): > 8.000 mg/kg

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rabbit): 3.540 mg/kg
Remarks: Based on data from similar materials

Ethoxylated coco alkyl amines:

Acute oral toxicity : LD50 (Rat): 500 - 2.000 mg/kg

malonic acid:

Acute oral toxicity : LD50 (Rat): 1.310 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 8,9 mg/l
Exposure time: 1 h
Test atmosphere: dust/mist

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Acute dermal toxicity : LD50 (Rabbit): > 10.000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

2-ethylhexane-1,3-diol:

Species : Rabbit
Result : No skin irritation

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

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

Ethoxylated coco alkyl amines:

Species : Rabbit
Method : OECD Test Guideline 404
Result : Skin irritation

malonic acid:

Species : Rabbit
Result : No skin irritation

Serious eye damage/eye irritation

Causes serious eye damage.

Components:

2-ethylhexane-1,3-diol:

Species : Rabbit
Result : Irreversible effects on the eye

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Species : Rabbit
Method : OECD Test Guideline 405
Result : Irritation to eyes, reversing within 21 days

Ethoxylated coco alkyl amines:

Result : Irreversible effects on the eye

malonic acid:

Species : Rabbit
Result : Irreversible effects on the eye
Remarks : Based on data from similar materials

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Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

Components:

2-ethylhexane-1,3-diol:

Test Type	: Draize Test
Exposure routes	: Skin contact
Species	: Humans
Result	: negative

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Test Type	: Maximisation Test
Exposure routes	: Skin contact
Species	: Guinea pig
Result	: negative
Remarks	: Based on data from similar materials

malonic acid:

Test Type	: Local lymph node assay (LLNA)
Exposure routes	: Skin contact
Species	: Mouse
Method	: OECD Test Guideline 429
Result	: negative
Remarks	: Based on data from similar materials

Germ cell mutagenicity

Not classified based on available information.

Components:

2-ethylhexane-1,3-diol:

Genotoxicity in vitro	: Test Type: Bacterial reverse mutation assay (AMES) Result: negative
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	Test Type: Chromosome aberration test in vitro Result: positive
--	--

	Test Type: In vitro mammalian cell gene mutation test Result: negative
--	---

	Test Type: In vitro sister chromatid exchange assay in mammalian cells Result: negative
--	--

Genotoxicity in vivo	: Test Type: Mammalian erythrocyte micronucleus test (in vivo cytogenetic assay)
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Species: Rat
Application Route: Intraperitoneal
Result: negative

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Method: OECD Test Guideline 471
Result: negative
Remarks: Based on data from similar materials

Ethoxylated coco alkyl amines:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Test Type: DNA damage and repair, unscheduled DNA synthesis in mammalian cells (in vitro)
Result: negative

malonic acid:

Genotoxicity in vitro : Test Type: Bacterial reverse mutation assay (AMES)
Result: negative

Carcinogenicity

Not classified based on available information.

Reproductive toxicity

Not classified based on available information.

Components:

2-ethylhexane-1,3-diol:

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat
Application Route: Skin contact
Result: negative

Test Type: Embryo-foetal development
Species: Rat
Application Route: Ingestion
Result: negative

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Effects on fertility : Test Type: Two-generation reproduction toxicity study
Species: Mouse
Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

Effects on foetal development : Test Type: Embryo-foetal development
Species: Rat

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Application Route: Ingestion
Result: negative
Remarks: Based on data from similar materials

STOT - single exposure

Not classified based on available information.

STOT - repeated exposure

Not classified based on available information.

Components:

2-ethylhexane-1,3-diol:

Assessment : No significant health effects observed in animals at concentrations of 100 mg/kg bw or less.

Repeated dose toxicity

Components:

2-ethylhexane-1,3-diol:

Species : Rat
NOAEL : 100 mg/kg
Application Route : Ingestion
Exposure time : 28 Days

Species : Rat
NOAEL : 1.884 mg/kg
Application Route : Skin contact
Exposure time : 13 Weeks

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Species : Rat
NOAEL : 400 mg/kg
LOAEL : 1.200 mg/kg
Application Route : Ingestion
Exposure time : 90 Days
Method : OECD Test Guideline 408
Remarks : Based on data from similar materials

Aspiration toxicity

Not classified based on available information.

SECTION 12: Ecological information

12.1 Toxicity

Components:

2-ethylhexane-1,3-diol:

Toxicity to fish : LC50 (*Ictalurus punctatus* (channel catfish)): 624 mg/l

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Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : ErC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

NOEC (Desmodesmus subspicatus (green algae)): 100 mg/l
Exposure time: 72 h
Method: OECD Test Guideline 201

Toxicity to microorganisms : NOEC : 1.000 mg/l
Exposure time: 5 h

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Toxicity to fish : LC50 (Scophthalmus maximus (turbot)): > 1.800 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 3.200 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202
Remarks: Based on data from similar materials

Toxicity to algae/aquatic plants : ErC50 (Skeletonema costatum (marine diatom)): 391 mg/l
Exposure time: 72 h
Method: ISO 10253

EC10 (Skeletonema costatum (marine diatom)): 188 mg/l
Exposure time: 72 h
Method: ISO 10253

Toxicity to microorganisms : IC50 : > 5.000 mg/l
Exposure time: 16 h
Remarks: Based on data from similar materials

Ethoxylated coco alkyl amines:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 7,5 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 9,5 mg/l
Exposure time: 48 h

Toxicity to microorganisms : EC50 : 740 mg/l
Exposure time: 4 h

malonic acid:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 150 mg/l

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Exposure time: 24 h

LC50 (Danio rerio (zebra fish)): > 100 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

Remarks: Based on data from similar materials

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 275 mg/l
Exposure time: 48 h

Toxicity to algae/aquatic plants : ErC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

EC10 (Pseudokirchneriella subcapitata (green algae)): > 1 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

Remarks: Based on data from similar materials

Toxicity to microorganisms : EC50 : > 300 mg/l
Exposure time: 3 h
Method: OECD Test Guideline 209
Remarks: Based on data from similar materials

12.2 Persistence and degradability

Components:

2-ethylhexane-1,3-diol:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 93 %
Exposure time: 28 d
Method: OECD Test Guideline 301E

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Biodegradability : Result: Readily biodegradable.
Biodegradation: 68 %
Exposure time: 28 d

Ethoxylated coco alkyl amines:

Biodegradability : Result: Not readily biodegradable.
Biodegradation: 50 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

malonic acid:

Biodegradability : Result: Readily biodegradable.
Biodegradation: > 70 %

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Exposure time: 28 d
Remarks: Based on data from similar materials

12.3 Bioaccumulative potential

Components:

2-ethylhexane-1,3-diol:

Partition coefficient: n- : log Pow: 3,63
octanol/water

Poly(oxy-1,2-ethanediyl), α -butyl- ω -hydroxy-:

Partition coefficient: n- : log Pow: 0,436
octanol/water

malonic acid:

Partition coefficient: n- : log Pow: -0,81
octanol/water

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product : If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

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14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks : Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59) : Not applicable
REACH - List of substances subject to authorisation (Annex XIV) : Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer : Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants : Not applicable
Regulation (EC) No 649/2012 of the European Parliament and the Council concerning the export and import of dangerous chemicals : Not applicable
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII) : Conditions of restriction for the following entries should be considered: Number on list 3
Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances. Not applicable
Water contaminating class (Germany) : WGK 1 slightly hazardous to water
Classification according to AwSV, Annex 1 (5.2)

Other regulations:

Take note of Directive 94/33/EC on the protection of young people at work or stricter national regulations, where applicable.
Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Full text of H-Statements

H302 : Harmful if swallowed.
H315 : Causes skin irritation.
H318 : Causes serious eye damage.

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H319 : Causes serious eye irritation.
H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. : Acute toxicity
Aquatic Chronic : Long-term (chronic) aquatic hazard
Eye Dam. : Serious eye damage
Eye Irrit. : Eye irritation
Skin Irrit. : Skin irritation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; 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; 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; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; 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; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:

Eye Dam. 1 H318
Aquatic Chronic 3 H412

Classification procedure:

Calculation method
Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not

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to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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