



Eni Arnica S 46

Product Safety Information Sheet

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis

Revision date: 16/06/2020 Supersedes: 21/09/2016 Version: 4.0

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

1.1. Product identifier

Product form	: Substance (UVCB)
Trade name	: Eni Arnica S 46
Chemical name	: Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane
IUPAC name	: Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane
EC Index-No.	: N/A
EC-No.	: 701-042-9
REACH registration No	: 01-2119496071-40
Product code	: 2560
Type of product	: Lubricants
Formula	: 1606-2020
Product group	: Trade product

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

1.2.1. Relevant identified uses

Main use category	: Industrial use, Professional use
Industrial/Professional use spec	: Wide dispersive use Used in closed systems
Use of the substance/mixture	: Hydraulic fluid ---- Do not use the product for any purposes that have not been advised by the manufacturer.
Function or use category	: Lubricants and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

ENI S.p.A.
P.le E. Mattei 1 - 00144 Rome Italy
Phone: (+39) 06 59821
www.eni.com

Contact:
Refining & Marketing

Competent person responsible for the Safety Data Sheet (Reg. EC nr. 1907/2006): SDSInfo@eni.com

1.4. Emergency telephone number

Emergency number	: CNIT +39 0382 24444 (24h) (IT + EN)
	Poison centre (UK): National Poisons Information Service Edinburgh (24h) (+44) 844 892 0111 0870 600 6266 (UK only) (Source: UN-WHO)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP]

Not classified

Adverse physicochemical, human health and environmental effects

None to be reported, according to the present EU regulations. For specific information about the toxicological/ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12.

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2.2. Label elements

None to be reported, according to the present EU regulations.

2.3. Other hazards (not relevant for classification)

Other hazards not contributing to the classification : None under normal conditions. Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment.

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : UVCB

Name	Product identifier	%
Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	(EC-No.) 701-042-9 (EC Index-No.) N/A (REACH-no) 01-2119496071-40	100

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : In case of doubt or persistent symptoms, consult always a physician.
First-aid measures after inhalation : Remove to fresh air, keep the casualty warm and at rest.
First-aid measures after skin contact : Wash skin with plenty of water. If inflammation or irritation persists, seek medical advice.
First-aid measures after eye contact : Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well apart. If irritation persists, seek medical advice.
First-aid measures after ingestion : Rinse mouth thoroughly with water. Give water to drink if victim completely conscious/alert.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : None under normal conditions at ambient temperatures.
Symptoms/effects after skin contact : Minor irritation may occur after prolonged or repeated contact.
Symptoms/effects after eye contact : Contact with eyes may cause a light transient irritation.
Symptoms/effects after ingestion : None under normal conditions.
Symptoms/effects upon intravenous administration : No information available.
Chronic symptoms : None to be reported, according to the present classification criteria.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Dry chemical, CO₂, or water spray or regular foam.
Unsuitable extinguishing media : Do not use water jets. They could cause splattering, and spread the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Not flammable.
Explosion hazard : None.
Hazardous decomposition products in case of fire : Incomplete combustion will generate poisonous carbon monoxide, carbon dioxide and other toxic gases. Oxygenated compounds (aldehydes, etc.).

5.3. Advice for firefighters

Firefighting instructions : Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. Spilled product which is not burning should be covered with sand or foam. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area.
Special protective equipment for firefighters : Personal protection equipment for firefighters (see also sect. 8). In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. EN 443. EN 469. EN 659.

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Other information : In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop or contain leak at the source, if safe to do so. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares). Avoid accidental sprays on hot surfaces or electrical contacts. Avoid direct contact with released material. Keep upwind.

6.1.1. For non-emergency personnel

Protective equipment : See Section 8.

Emergency procedures : Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

6.1.2. For emergency responders

Protective equipment : Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work helmet. Antistatic non-skid safety shoes or boots. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures : Notify local authorities according to relevant regulations.

6.2. Environmental precautions

Prevent liquid from entering sewers, watercourses, underground or low areas.

6.3. Methods and material for containment and cleaning up

For containment : Contain spilled liquid with sand, earth or other suitable absorbents (non-flammable). Recover free liquid and waste materials in suitable waterproof and oil-resistant containers. Clean contaminated area. Dispose of according to local regulations.

Methods for cleaning up : Wash contaminated area with large amounts of water. This material and its container must be disposed of in a safe way, and according to local legislation.

Other information : Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Local regulations may also prescribe or limit actions to be taken. For this reason, local experts should be consulted when necessary.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : This material is combustible, but will not ignite readily. Provide adequate ventilation. Use adequate personal protective equipment as needed. Due to the extremely slippery nature of this material, more care than usual must be exercised in material handling practices to keep off all walking surfaces. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid release to the environment. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned.

Handling temperature : This product can be handled at ambient temperatures.

Hygiene measures : Ensure that proper housekeeping measures are in place. Avoid contact with skin. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages. Take off immediately all contaminated clothing and wash it before reuse. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in dry, well ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.

Incompatible products : None known.

Storage temperature : This product can be stored at ambient temperatures.

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- Storage area : Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
- Packages and containers: : If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product.
- Packaging materials : For containers, or container linings use materials specifically approved for use with this product.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Monitoring methods	
Monitoring methods	Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts, Refer to relevant legislation and in any case to the good practice of industrial hygiene.

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
DNEL/DMEL (additional information)	
Additional information	Not derived - Not classified as hazardous for health
PNEC (additional information)	
Additional information	Not derived - Not classified as hazardous for environment

- Note : The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Before entering storage tanks and commencing any operation in a confined area (e.g. tunnels), carry out an adequate clean-up, and check the atmosphere for oxygen content and flammability.

Personal protective equipment (for industrial or professional use):

Safety glasses. Gloves. Protective clothing. Safety shoes or boots.

Hand protection:

Protective gloves made of PVC. Nitrile rubber gloves. Chloroprene rubber. 6 (> 480 minutes). Use gloves respecting all the conditions and within the limits set by the manufacturer. Replace gloves immediately in case of cuts, holes or other signs of damages or degradation. If necessary, refer to the EN 374 standard. Personal hygiene is a key element for an effective hand care. Gloves must be worn only with clean hands. After wearing gloves, hands must be carefully washed and dried.

Eye protection:

Wear security glasses which protect from splashes. DIN EN 166

Skin and body protection:

Long-sleeved overalls. If necessary, refer to the EN 340 and related standards, for definition of characteristics and performance according to the risk rating of the area. Antistatic non-skid safety shoes or boots, chemical resistant, if necessary heat resistant and insulated.

Respiratory protection:

Not necessary with sufficient ventilation. Independently from other possible actions (technical modifications, operating procedures, and other means to limit the exposure of workers), personal protection equipment can be used according to necessity. Open or well ventilated spaces: in presence of oil mists and if the product is handled without adequate containment means: use full or half-face masks with filter for mists/aerosols. In case there is a significant presence of vapours (e.g. through handling at high temperature), use full or half-face masks with filter for hydrocarbon vapours. (EN 136/140/145). Combination filter device (DIN EN 141). Closed or confined areas (e.g. tank interiors): the use of protection measures for airways (masks or self-contained breathing apparatus), must be assessed according to the specific activity, as well as level and duration of predicted exposure. (EN 136/140/145)

Personal protective equipment symbol(s):

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Thermal hazard protection:

If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

Environmental exposure controls:

Do not discharge the product into the environment. Storage areas/installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Prevent discharge of undissolved substance to or recover from onsite wastewater. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Consumer exposure controls:

Not applicable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear liquid.
Colour	: Yellow-brown.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -30 °C (pour point) (ASTM D 97)
Freezing point	: No data available
Boiling point	: > 150 °C
Flash point	: 290 °C (ASTM D 92)
Auto-ignition temperature	: ≥ 300 °C (DIN 51794)
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: Not determined
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0,925 g/cm ³ (20 °C) (DIN 51757)
Solubility	: Water: Immiscible and insoluble
Log Pow	: No data available
Viscosity, kinematic	: 41,4 - 50,1 mm ² /s (40 °C) (ASTM D 445)
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: No data available

9.2. Other information

Additional information : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

This substance does not offer any further hazard for reactivity, except what is reported in the following paragraphs.

10.2. Chemical stability

Stable product, according to its intrinsic properties (in normal conditions of storage and handling).

10.3. Possibility of hazardous reactions

None (in normal conditions of storage and handling).

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

10.5. Incompatible materials

None.

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10.6. Hazardous decomposition products

Thermal decomposition may produce : Carbon dioxide, Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified (Conclusive but not sufficient for classification)
Acute toxicity (dermal)	: Not classified (Conclusive but not sufficient for classification)
Acute toxicity (inhalation)	: Not classified (Conclusive but not sufficient for classification)
Additional information	: (according to composition)

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
LD50 oral rat	> 2000 mg/kg bodyweight
LD50 dermal rabbit	> 2000 mg/kg bodyweight
LC50 inhalation rat (mg/l)	5,1 mg/l/4h

Skin corrosion/irritation	: Not classified (Conclusive but not sufficient for classification)
Serious eye damage/irritation	: Not classified (Conclusive but not sufficient for classification)
Respiratory or skin sensitisation	: Not classified (Conclusive but not sufficient for classification)
Germ cell mutagenicity	: Not classified (Conclusive but not sufficient for classification)
Carcinogenicity	: Not classified (Conclusive but not sufficient for classification)
Reproductive toxicity	: Not classified (Conclusive but not sufficient for classification)
STOT-single exposure	: Not classified (Conclusive but not sufficient for classification)
STOT-repeated exposure	: Not classified (Conclusive but not sufficient for classification)

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
NOAEL (oral, rat, 90 days)	1000 - 1613 mg/kg bodyweight/day
NOAEL (dermal, rat/rabbit, 90 days)	2000 mg/kg bodyweight/day
NOAEC (inhalation, rat, vapour, 90 days)	500 mg/m ³

Aspiration hazard	: Not classified (Conclusive but not sufficient for classification)
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Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
Viscosity, kinematic	41,4 - 50,1 mm ² /s (40 °C) (ASTM D 445)

Potential adverse human health effects and symptoms	: Contact with eyes may cause temporary reddening and irritation.
Other information	: None.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment. An uncontrolled release to the environment may nevertheless produce a contamination of different environmental compartments (air, soil, underground, surface water bodies, aquifers). Handle according to general working hygiene practices to avoid pollution and release into the environment.
Ecology - water	: This product is not soluble in water. It floats on water and forms a film on the surface. The damage to aquatic organisms is of mechanical kind (immobilization and entrapment)
Hazardous to the aquatic environment, short-term (acute)	: Not classified (Conclusive but not sufficient for classification)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified (Conclusive but not sufficient for classification)

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
LC50 fish 1	10 g/l
EC50 Daphnia 1	100 - 1000 mg/l (EL50)
EC50 72h algae (1)	100 - 1000 mg/l (EL50)
NOEC chronic crustacea	110 mg/l (21d, NOELR)

12.2. Persistence and degradability

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane	
Persistence and degradability	The most significant constituents of the product should be considered as "readily biodegradable".

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12.3. Bioaccumulative potential

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane

Ecology - soil	No data available.
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12.5. Results of PBT and vPvB assessment

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Results of PBT-vPvB assessment	The components in this formulation do not meet the criteria for classification as PBT or vPvB.
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12.6. Other adverse effects

Other adverse effects : None.

Additional information : No other effects known

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Do not dispose of the product, either new or used, by discharging into sewers, tunnels, lakes or water courses. Deliver to a qualified official collector.

Sewage disposal recommendations : Dispose of in a safe manner in accordance with local/national regulations. Do not apply industrial sludge to natural soils. Sludge should be incinerated, contained or reclaimed.

Additional information : Empty containers may contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been cleaned, and declared safe. Dispose of empty, not cleaned containers safely, according to local regulations.

Ecology - waste materials : The product as it is does not contain halogenated substances.

SECTION 14: Transport information

In accordance with ADN / ADR / IATA / IMDG / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
None.				

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

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

IBC code : Not applicable.

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane is not on the REACH Candidate List

Fatty acids, C18-unsatd., diesters and triesters with trimethylolpropane is not on the REACH Annex XIV List

Other information, restriction and prohibition regulations : Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH). (et sequens). Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Directives 89/391/CEE, 89/654/CEE, 89/655/CEE, 89/656/CEE, 90/269/CEE, 90/270/CEE, 90/394/CEE, 90/679/CEE, 93/88/CEE, 95/63/CE, 97/42/CE, 98/24/CE, 99/38/CE, 99/92/CE, 2001/45/CE, 2003/10/CE, 2003/18/CE (Health and safety on the workplace). Directive 2012/18/CE (Control of major-accident hazards involving dangerous substances). Directive 2004/42/CE (Limitation of emissions of Volatile Organic Compounds). Directive 98/24/EC (protection of the health and safety of workers from the risks related to chemical agents at work). Directive 92/85/CE (measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding). Substances Depleting the Ozone layer (1005/2009) - Annex I Substances (ODP). Regulation (EC) No 850/2004 of the European Parliament and of the Council of 29 April 2004 on persistent organic pollutants and amending Directive 79/117/EEC. Regulation EU (649/2012) - Export and Import of hazardous chemicals (PIC).

15.1.2. National regulations

National adoption of EU Directives concerning health and safety on the workplace.

National adoption of EU Directives concerning control of major-accident hazards involving dangerous substances (2012/18/CE).

Relevant national laws on prevention of water pollution.

Relevant national laws on protection of the health of pregnant workers (National adoption of Dir. 92/85/EEC).

National adoption of Directives 75/439/CEE - 87/101/CEE concerning disposal of used oils.

Germany

Reference to AwSV

: Water hazard class (WGK) (D) awg, Hazardous to water in general

WGK remark

: Classification is carried out on the basis of the Ordinance on facilities for handling substances that are hazardous to water (Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV)) of 18 April 2017 (BGBl 2017, Teil I, Nr. 22, Seite 905).

VbF class (D)

: Not applicable.

Storage class (LGK) (D)

: LGK 10 - Combustible liquids

Employment restrictions

: Employment prohibitions for the protection of young people at work according to § 22 section 1(6) JArbSchG have to be observed.

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Other information, restrictions and prohibition regulations

: TRGS 555: Working instruction and information for workers

Netherlands

Saneringsinspanningen

: A - Do not discharge in principle; if so, then apply best existing techniques

SZW-lijst van kankerverwekkende stoffen

: The substance is not listed

SZW-lijst van mutagene stoffen

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid

: The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling

: The substance is not listed

15.2. Chemical safety assessment

This substance is classified as not hazardous according to regulation (EC) 1272/2008 [CLP], so the drafting of exposure scenarios is not required according to Article 14, paragraph 4 of Regulation (EC) No. 1907/2006.

SECTION 16: Other information

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Indication of changes:

Section	Changed item	Change	Notes
1.1	REACH registration No	Added	
1.1	EC-No.	Added	
1.1	EC Index-No.	Added	
1.1	Formula	Modified	
1.1	Name	Modified	
1.1	Type of product	Added	
1.1	Product form	Modified	
1.1	Trade name	Modified	
1.2	Use of the substance/mixture	Modified	
1.2	Use of the substance/mixture	Removed	
2.1	Adverse physicochemical, human health and environmental effects	Modified	
2.2	No labelling obligation	Added	
2.3	Other hazards not contributing to the classification	Modified	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures general	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after inhalation	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.2	Symptoms/effects after ingestion	Modified	
4.2	Symptoms/effects after skin contact	Modified	
4.2	Symptoms/effects after inhalation	Modified	
4.2	Symptoms/effects after eye contact	Modified	
4.2	Symptoms / injuries (general indications)	Removed	
4.3	Other medical advice or treatment	Modified	
5.1	Unsuitable extinguishing media	Modified	
5.1	Suitable extinguishing media	Modified	
5.2	Hazardous decomposition products in case of fire	Added	
5.2	Fire hazard	Modified	
5.2	Explosion hazard	Modified	
5.3	Special protective equipment for firefighters	Modified	
5.3	Firefighting instructions	Modified	
6.1	Protective equipment	Modified	
6.2	Environmental precautions	Modified	
6.3	Methods for cleaning up	Added	
6.3	For containment	Modified	
7.1	Handling temperature	Added	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Modified	
7.2	Packaging materials	Modified	
7.2	Storage temperature	Added	
7.2	Incompatible products	Modified	
8.1	DNEL/DMEL (additional information)	Modified	
8.1	PNEC (additional information)	Modified	
8.2	Respiratory protection	Modified	
8.2	Eye protection	Modified	
8.2	Materials for protective clothing	Removed	
8.2	Hand protection	Modified	

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8.2	Appropriate engineering controls	Modified	
9.1	Log Pow	Removed	
9.1	Solubility in water	Modified	
9.1	Density	Modified	
9.1	Melting point	Modified	
9.1	Flammability (solid, gas)	Added	
9.1	Flash point	Modified	
9.1	Boiling point	Modified	
9.1	Relative evaporation rate (butylacetate=1)	Removed	
9.1	pH	Removed	
9.1	Odour	Modified	
9.1	Colour	Modified	
9.1	Appearance	Modified	
9.1	Odour threshold (ppm)	Removed	
9.1	Molecular mass	Removed	
10.1	Reactivity	Modified	
10.3	Possibility of hazardous reactions	Modified	
10.4	Conditions to avoid	Modified	
10.5	Incompatible materials	Modified	
10.6	Hazardous decomposition products	Modified	
11.1	Reason for no classification	Modified	
11.1	Additional information	Removed	
11.1	NOAEC (inhalation, rat, vapour, 90 days)	Added	
11.1	NOAEL (dermal, rat/rabbit, 90 days)	Added	
11.1	NOAEL (oral, rat, 90 days)	Added	
11.1	Reason for no classification	Modified	
11.1	Additional information	Removed	
11.1	Reason for no classification	Modified	
11.1	Additional information	Removed	
11.1	Reason for no classification	Modified	
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11.1	Reason for no classification	Modified	
11.1	Additional information	Removed	
11.1	Reason for no classification	Modified	
11.1	Additional information	Removed	
11.1	ATE (dust, mist)	Removed	
11.1	ATE CLP (vapours)	Removed	
11.1	ATE (dermal)	Removed	
11.1	ATE (oral)	Removed	
11.1	LD50 dermal rabbit	Modified	
11.1	Potential adverse human health effects and symptoms	Modified	
11.1	LD50 oral rat	Modified	
11.1	LC50 inhalation rat (mg/l)	Modified	
12.1	NOEC chronic crustacea	Added	
12.1	EC50 72h algae (1)	Added	
12.1	ErC50 (algae)	Removed	
12.1	EC50 Daphnia 1	Modified	
12.1	LC50 fish 1	Modified	
12.1	Ecology - general	Modified	
12.1	Ecology - air	Removed	
12.2	Persistence and degradability	Modified	
12.3	Bioaccumulative potential	Added	
12.3	Log Pow	Removed	

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Product Safety Information Sheet

A safety data sheet is not required for this product under Article 31 of REACH. This Product Safety Information Sheet has been created on a voluntary basis

12.4	Ecology - soil	Added	
13.1	EURAL code (EWC)	Removed	
13.1	Product/Packaging disposal recommendations	Removed	
13.1	Sewage disposal recommendations	Modified	
14.6	Special transport precautions	Removed	
14.7	IBC code	Modified	
15.1	Saneringsinspanningen	Added	
15.1	Other information, restrictions and prohibition regulations	Added	
15.1	Employment restrictions	Added	
15.1	Water hazard class (WGK) (D)	Modified	
15.1	Maladies professionnelles (F)	Removed	
15.1	Other information, restriction and prohibition regulations	Added	
15.2	Chemical safety assessment	Modified	
16	Abbreviations and acronyms	Modified	
16	Data sources	Modified	
16	Indication of changes	Added	

Abbreviations and acronyms:

	N/A = not applicable
	N/D = not available
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Effective concentration for 50 percent of test population (median effective concentration)
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Lethal concentration for 50 percent of test population (median lethal concentration)
LD50	Lethal dose for 50 percent of test population (median lethal dose)
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals, Regulation (EC) No 1907/2006
RID	Regulation concerning the International Carriage of Dangerous Goods by Railways
SDS	Safety Data Sheet
STP	Sewage treatment plant
vPvB	Very Persistent and Very Bioaccumulative

Data sources : Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (et sequens). Chemical safety assessment.

Training advice : Provide adequate training to professional operators for the use of PPEs, according to the information contained in this Safety Data Sheet.

Other information : Do not use the product for any purposes that have not been advised by the manufacturer.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.