

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

1.1. Product identifier

Product code : Tintolav Activ Superstat
Trades code : A04-010
Product line: Tintolav

UFI: TJ23-903F-N00E-WD5Q

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

anti-static cleaning Strengtheners perchloroethylene

Sectors of use:

Industrial Manufacturing[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Uses advised against

Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

Tintolav s.r.l. - Via M. D'Antona 7 - 10028 Trofarello (TO) Tel. 011/649.68.27 Fax 011/649.67.42

Email: info@tintolav.com - Sito internet: www.tintolav.com

Email tecnico competente: a.conedera@tintolav.com

National contact: Malta: Emergency Ambulance 112
Accident & Emergency Department 2545 4030

1.4. Emergency telephone number

Members of Public in England, Scotland and Wales can contact NHS 111/NHS 24 by dialling 111

In Northern Ireland contact your local GP

In Republic of Ireland call 01 809 2166

SECTION 2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS05, GHS07, GHS09

Hazard Class and Category Code(s):

Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2

Hazard statement Code(s):

H315 - Causes skin irritation.

H318 - Causes serious eye damage.

H411 - Toxic to aquatic life with long lasting effects.

If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

The product is dangerous to the environment as it is toxic to aquatic life with long lasting effects

2.1.2 Additional information:

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):
GHS05, GHS09 - Danger



Hazard statement Code(s):
H315 - Causes skin irritation.
H318 - Causes serious eye damage.
H411 - Toxic to aquatic life with long lasting effects.

Supplemental Hazard statement Code(s):
not applicable

Precautionary statements:**Prevention**

P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Response

P302+P352 - IF ON SKIN: Wash with plenty of water/...
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor/physician
P332+P313 - If skin irritation occurs: Get medical advice/attention.

Disposal

P501 - Dispose of contents / container in accordance with local and national regulations.

Contains:

cocamide dea, C13-15 pareth-7, diethanolamine, benzalkonium chloride.

Contains (Reg.EC 648/2004):

>= 30% Non-ionic surfactants, >= 5% < 15% Cationic surfactants, < 5% Perfumes, Eucalyptus Globulus Leaf, Turpentine, Vanillin.

For professional use only

UFI: TJ23-903F-N00E-WD5Q

2.3. Other hazards

The product does not contain substances identified as endocrine disruptors for human health according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as endocrine disruptors for the environment according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as PBT according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as vPvB according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as PMT according to the criteria established by Regulation (EC) No.

1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as vPvM according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

No information on other hazards

SECTION 3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
2-(2-butoxyethoxy)ethanol	>= 50 < 75%	Eye Irrit. 2, H319 ATE oral = 1.720,000 mg/kg ATE dermal = 2.700,000 mg/kg ATE inhal = 374,000 mg/l/4 h	603-096-00-8	112-34-5	203-961-6	01-2119475 104-44-xxxx
Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)	>= 15 < 25%	Skin Irrit. 2, H315; Eye Dam. 1, H318; Aquatic Chronic 2, H411 1 1 ATE oral > 5.000,000 mg/kg ATE dermal > 2.000,000 mg/kg	ND	68155-07-7	268-935-9	01-2119490 100-53-000 1
Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized	>= 5 < 15%	Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412 1 1 ATE oral = 2.000,000 mg/kg ATE dermal = 2.000,000 mg/kg	ND	ND	931-216-1	01-2119472 309-33-000 4
Alcohols, C13-15, branched and linear, ethoxylated	>= 5 < 10,00%	Acute Tox. 4, H302; Eye Dam. 1, H318; Aquatic Chronic 3, H412 Limits: Eye Irrit. 2, H319 3<= %C <10; Eye Dam. 1, H318 %C >10; 1 1 ATE oral > 300,000 mg/kg	ND	157627-86-6	ND	ND
propan-2-ol	>= 1 < 5%	Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	603-117-00-0	67-63-0	200-661-7	01-2119457 558-25

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACH
		ATE oral = 2.100,000 mg/kg ATE dermal = 2.100,000 mg/kg ATE inhal = 29,000 mg/l/4 h				
diethanolamine	$\geq 0,10 < 1\%$	Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Dam. 1, H318; Repr. 2, H361; STOT RE 2, H373 ATE oral = 710,000 mg/kg ATE dermal = 1.220,000 mg/kg	603-071-00-1	111-42-2	203-868-0	01-2119488 930-28-XXX X
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides	$\geq 0,1 < 1\%$	Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 1 10 ATE oral = 344,000 mg/kg ATE dermal = 3.340,000 mg/kg ATE inhal = 5,000 mg/l/4 h	ND	68424-85-1	270-325-2	01-2119970 550-39
Alcohols, C12-14, ethoxylated	$\geq 0,1 < 1\%$	Aquatic Acute 1, H400; Aquatic Chronic 2, H411 ATE oral = 2.000,000 mg/kg ATE dermal = 2.000,000 mg/kg ATE inhal = 1,600 mg/l/4 h	ND	68439-50-9	ND	01-2119487 984-16-xxxx x
ethanol	$< 0,1\%$	Flam. Liq. 2, H225; Eye Irrit. 2, H319 Limits: Eye Irrit. 2, H319 %C ≥ 50 ; ATE oral = 7.060,000 mg/kg ATE dermal = 20.000,000 mg/kg ATE inhal = 116,900 mg/l/4 h	603-002-00-5	64-17-5	200-578-6	01-2119457 610-43

SECTION 4. First aid measures

4.1. Description of first aid measures

Inhalation:

Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:

Take contaminated clothing Immediately off.

Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.

In case of skin contact, wash immediately with soap and water.

Direct contact with eyes (of the pure product).:

Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:

Not hazardous. It's possible to give activated charcoal in water or liquid paraffin medicine

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

No data available.

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

If skin irritation occurs: Get medical advice/attention.

Immediately call a POISON CENTER/doctor/physician

SECTION 5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:

Water spray, CO₂, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective suit.

The spray water can be used to protect the people involved in the extinction

You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

SECTION 6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:

Wear mask, gloves and protective clothing.

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provision of sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.

If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the authorities.

Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:

Rapidly recover the product, wear a mask and protective clothing

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

6.3.2 For cleaning up:

After wiping up, wash with water the area and materials involved

6.3.3 Other information:

None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION 7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors

Wear protective gloves/protective clothing/eye protection/face protection.

At work do not eat or drink.

See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.

Keep containers upright and safe by avoiding the possibility of falls or collisions.

Store in a cool place, away from sources of heat and direct exposure of sunlight.

7.3. Specific end use(s)

Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources.

Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

SECTION 8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

CVE: TWA 10 ppm 67.5 mg/m³ STEL 15 ppm 101.2 mg/m³

MAK DFG 10 ppm 67 mg/m³

propan-2-ol:

TLV: TWA 200 ppm 400 ppm as STEL A4 (not classifiable as a human carcinogen); (ACGIH 2004).

MAK: 200 ppm 500 mg/m peak limitation Category: II (2); Risk group for pregnancy: C; (DFG 2004).

diethanolamine:

TLV: 2 mg/m (cute) (ACGIH 2002).

Mak: cancerogenicit class: Class 3A; Sh, H (2002)

ethanol:

Component CAS-No. Value Control parameters

Basis

Ethanol-17-64 TWA 5 ppm 1.000

1.920 mg/m³

UK. EH40 WEL-Workplace Exposure Limits

Remarks Where no specific short-term exposure limit is listed, a figure three times the long-term exposure should be used

- Substance: 2-(2-butoxyethoxy)ethanol

DNEL

Systemic effects Long term Workers inhalation = 67,5 (mg/m³)

Systemic effects Long term Workers dermal = 20 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 34 (mg/m³)

Systemic effects Long term Consumers dermal = 10 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 1,25 (mg/kg bw/day)

Local effects Long term Workers inhalation = 67,5 (mg/m³)

Local effects Long term Consumers inhalation = 34 (mg/m³)

Local effects Short term Workers inhalation = 101,2 (mg/m³)

Local effects Short term Consumers inhalation = 50,6 (mg/m³)

PNEC

Sweet water = 1 (mg/l)

sediment Sweet water = 4 (mg/kg/sediment)

Sea water = 0,1 (mg/l)

sediment Sea water = 0,44 (mg/kg/sediment)

STP = 200 (mg/l)

ground = 0,32 (mg/kg ground)

- Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

DNEL

Systemic effects Long term Workers inhalation = 73,4 (mg/m³)

Systemic effects Long term Workers dermal = 4,16 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 21,73 (mg/m³)

Systemic effects Long term Consumers dermal = 2,5 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 6,25 (mg/kg bw/day)

Local effects Long term Workers dermal = 0,0936 (mg/kg bw/day)

Local effects Long term Consumers dermal = 0,0562 (mg/kg bw/day)

PNEC

Sweet water = 0,007 (mg/l)

sediment Sweet water = 0,195 (mg/kg/sediment)

Sea water = 0,0007 (mg/l)

sediment Sea water = 0,0195 (mg/kg/sediment)

STP = 830 (mg/l)

ground = 0,035 (mg/kg ground)

- Substance: Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized

DNEL

Systemic effects Long term Workers inhalation = 44 (mg/m³)

Systemic effects Long term Workers dermal = 312,5 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 13 (mg/m³)

Systemic effects Long term Consumers dermal = 187,5 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 7,5 (mg/kg bw/day)

PNEC

Sweet water = 0,00191 (mg/l)

sediment Sweet water = 0,58 (mg/kg/sediment)

Sea water = 0,000191 (mg/l)

STP = 2,96 (mg/l)

ground = 0,115 (mg/kg ground)

- Substance: propan-2-ol

DNEL

Systemic effects Long term Workers inhalation = 500 (mg/m³)

Systemic effects Long term Workers dermal = 888 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 89 (mg/m³)

Systemic effects Long term Consumers dermal = 319 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 26 (mg/kg bw/day)

PNEC

Sweet water = 140,9 (mg/l)

sediment Sweet water = 552 (mg/kg/sediment)

Sea water = 140,9 (mg/l)

sediment Sea water = 552 (mg/kg/sediment)

STP = 2251 (mg/l)

ground = 28 (mg/kg ground)

- Substance: diethanolamine

DNEL

Systemic effects Long term Workers inhalation = 0,75 (mg/m³)

Systemic effects Long term Workers dermal = 0,13 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 0,125 (mg/m³)

Systemic effects Long term Consumers dermal = 0,07 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 0,06 (mg/kg bw/day)

Local effects Long term Workers inhalation = 0,5 (mg/m³)

Local effects Long term Consumers inhalation = 0,25 (mg/m³)

PNEC

Sweet water = 0,021 (mg/l)

sediment Sweet water = 0,092 (mg/kg/sediment)

Sea water = 0,00156 (mg/l)

sediment Sea water = 0,0092 (mg/kg/sediment)

STP = 100 (mg/l)

ground = 0,007 (mg/kg ground)

- Substance: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

DNEL

Systemic effects Long term Workers inhalation = 3,96 (mg/m³)

Systemic effects Long term Workers dermal = 5,7 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 1,64 (mg/m³)

Systemic effects Long term Consumers dermal = 3,4 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 3,4 (mg/kg bw/day)

PNEC

Sweet water = 0,0009 (mg/l)

sediment Sweet water = 12,27 (mg/kg/sediment)

Sea water = 0,00096 (mg/l)

sediment Sea water = 13,09 (mg/kg/sediment)

STP = 0,4 (mg/l)

ground = 7 (mg/kg ground)

- Substance: ethanol

DNEL

Systemic effects Long term Workers inhalation = 950 (mg/m³)

Systemic effects Long term Workers dermal = 343 (mg/kg bw/day)

Systemic effects Long term Consumers inhalation = 114 (mg/m³)

Systemic effects Long term Consumers dermal = 206 (mg/kg bw/day)

Systemic effects Long term Consumers oral = 87 (mg/kg bw/day)

PNEC

Sweet water = 0,96 (mg/l)

sediment Sweet water = 3,6 (mg/kg/sediment)

Sea water = 0,79 (mg/l)

sediment Sea water = 2,9 (mg/kg/sediment)

STP = 580 (mg/l)

ground = 0,63 (mg/kg ground)

8.2. Exposure controls



Appropriate engineering controls:

Industrial Manufacturing:

No specific monitoring foreseen

Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen

Individual protection measures:

(a) Eye / face protection

When handling the pure product use safety glasses (spectacles cage) (EN 166).

(b) Skin protection

(i) Hand protection

Manipulate with gloves. The gloves should be checked before being used. Use a technique suitable for the removal of gloves (without touching the outside of the glove) to avoid skin contact with this product dispose of contaminated gloves after use in accordance with the legislation and good laboratory practices. Wash and dry your hands.

Selected protective gloves shall comply with the requirements of EU Directive 89/686/EEC and EN 374 standards arising therefrom.

Full contact

Material: nitrile rubber

minimum thickness: 0.11 mm

permeation time: 480 min

(ii) Other

When handling the pure product wear full protective skin clothing.

(c) Respiratory protection

Not needed for normal use.

(d) Thermal hazards

No hazard to report

Environmental exposure controls:

Related to contained substances:

diethanolamine:

Do not let this chemical contaminates the environment.

SECTION 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical and chemical properties	Value	Determination method
Physical state	Liquid	
Colour	straw yellow	
Odour	Characteristic	
Odour threshold	not determined	
Melting point/freezing point	not determined	
Boiling point or initial boiling point and boiling range	not determined	
Flammability	nonflammable	
Lower and upper explosion limit	not determined	
Flash point	> 65 °C	ASTM D92
Auto-ignition temperature	not determined	
Decomposition temperature	not determined	
pH	7,5 - 8,5 sol. 1%	
Kinematic viscosity	not determined	
Solubility	not determined	
Water solubility	irrelevant	
Partition coefficient n-octanol/water (log value)	not determined	
Vapour pressure	not determined	
Density and/or relative density	1,00 - 1,100 gr/cm3	
Relative vapour density	not determined	
Particle characteristics	irrelevant	

9.2. Other information

Content of VOC ready to use condition: 1,03 %

9.2.1 Information with regard to physical hazard classes

Irrelevant

9.2.2 Other safety characteristics

Irrelevant

SECTION 10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Related to contained substances:
2-(2-butoxyethoxy)ethanol:
Avoid contact with air.

10.5. Incompatible materials

It can ignite in contact with oxidants mineral acids.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION 11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE(mix) oral = 3.481,5 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = ∞

(a) acute toxicity: ethanol: LD50 Oral-rat-7.060 mg/kg

Remarks: Lungs, Thorax, or Respiration: Other changes.

LC50 Inhalation-rat-10:0-20000 ppm

(b) skin corrosion/irritation: If brought into contact with the skin, the product causes significant inflammation with erythema, scabs, or edema.

diethanolamine: irritating

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Method: DOT Corrosive

Exposure time: 12:0 am

ethanol: Skin-rabbit

Result: Irritating to skin. -12:0 am

(c) serious eye damage/irritation: If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

ethanol: Eyes-rabbit

Result: Mild eye irritation-12:0 am

(Draize Test)

2-(2-butoxyethoxy)ethanol: Eyes-rabbit Result: Mild eye irritation-24h

diethanolamine: Severely irritating

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: rabbit Result: Caustic Method: DOT

(d) respiratory or skin sensitisation: Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides: Buehler

guinea pig Test Classification: Did not cause sensitization on laboratory animals.

Result: not sensitizing Method: OECD Test Guideline 406

(e) germ cell mutagenicity: 2-(2-butoxyethoxy)ethanol: Mutagenicity-Bacterial,: negative +/-activation

Chromosomal aberration,: negative +/-activation

Mutagenicity-Mammalian,: negative +/-activation

(f) carcinogenicity: diethanolamine: IARC: Group 3-3: not classifiable regarding its carcinogenicity for man

(g) reproductive toxicity: ethanol: Reproductive toxicity-Human-female-Oral

Effects on Newborn: Apgar score (human only). Effects on Newborn: Other measures or neonatal effects.

Effects on Newborn: Drug dependence.

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) repeated exposure based on available data, the classification criteria are not met.

(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

INHALATION RISK: A harmful contamination of air has been reached slowly for evaporation of this substance at 20 °C;

However, for spraying or scattering, much more quickly.

Effects of short-term exposure: the substance is irritating to eyes the effects of REPEATED EXPOSURE or long term: the liquid degreases the skin features.

ACUTE HAZARDS/symptoms dry SKIN.

EYE Redness. Pain.

LD50 (rat) Oral (mg/kg body weight) = 1720

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2700

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 374

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl):

LD50 (rat) Oral (mg/kg body weight) > 5000

LD50 Dermal (rat or rabbit) (mg/kg body weight) > 2000

Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:

LD50 (rat) Oral (mg/kg body weight) = 2000

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

Alcohols, C13-15, branched and linear, ethoxylated:

LD50 (rat) Oral (mg/kg body weight) > 300

propan-2-ol:

ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation of its fumes.

INHALATION RISK: A harmful contamination of the air will be reached quite slowly due to evaporation of the substance at 20 °C; However, for spraying or scattering, much more quickly.

Effects of short-term exposure: the substance is irritating to the eyes and the respiratory tract the substance may cause effects on the central nervous system, causing depression. Much greater exposure to the OEL may lead to unconsciousness.

Effects of REPEATED EXPOSURE or long term: the liquid degreases the skin features.

ACUTE HAZARDS/Symptoms INHALATION Cough. Vertigo. Drowsiness. Headaches. Sore throat. See If Swallowed.

CUTE CUTE.

EYE Redness.

INGESTION abdominal pain. Difficulty in breathing. Nausea. State of unconsciousness. Vomiting. (Further see inhalation).

NOT and use of alcoholic beverages enhances the harmful effect.

LD50 (rat) Oral (mg/kg body weight) = 2100

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2100

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 29

diethanolamine:

ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation of its fumes and ingestion.

INHALATION RISK: A dangerous air contamination will not be reached or the sar only very slowly by evaporation of the substance at 20 C.

Effects of short-term exposure: the substance is corrosive to the eyes.

Effects of REPEATED EXPOSURE or long-term repeated or prolonged Contact may cause skin sensitization. The substance may have effects on the liver kidneys ACUTE HAZARDS/symptoms EYES Reddening. Pain. Severe deep burns.

INGESTION abdominal pain. Burning sensation.

N O T and not bring home work clothes.

LD50 (rat) Oral (mg/kg body weight) = 710

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 1220

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

LD50 (rat) Oral (mg/kg body weight) = 344

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 3340

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 5

Alcohols, C12-14, ethoxylated:

Oral > LD50 2000 mg/kg (rat)

LD50 (rat) Oral (mg/kg body weight) = 2000

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2000

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 1,6

ethanol:

ROUTES of EXPOSURE: the substance can be absorbed into the body by inhalation of its fumes and ingestion.

INHALATION RISK: A harmful contamination of the air will be reached quite slowly due to evaporation of the substance at 20 C.

Effects of short-term exposure: the substance is irritating to the eyes. Inhalation of high vapour can concetrazioni cause irritation of the eyes and respiratory tract. The substance may cause effects on the central nervous system effects of REPEATED EXPOSURE or long term: the liquid degreasing the skin features. The substance may have an effect on the high central nervous system respiratory tract, causing irritation, headaches, fatigue and lack of concentration. See Notes.

ACUTE HAZARDS/Symptoms INHALATION Cough. Headaches. Fatigue. Drowsiness.

CUTE CUTE.

EYE Redness. Pain. Burning.

SWALLOWED burning sensation. Headaches. Confusion. Vertigo. State of unconsciousness.

N O T and consumption of ethanol during pregnancy can have adverse effects on the unborn child. Chronic ethanol ingestion can cause cirrhosis of the liver.

LD50 (rat) Oral (mg/kg body weight) = 7060

LD50 Dermal (rat or rabbit) (mg/kg body weight) = 20000

CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 116,9

11.2. Information on other hazards

No data available.

11.2.1. Endocrine disrupting properties

The product does not contain substances identified as endocrine disruptors for human health according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as endocrine disruptors for the environment according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

SECTION 12. Ecological information

12.1. Toxicity

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl):

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

Toxic to fish Lc50-lepomis macrochirus-1,300 mg/l-96 h CL0-Leuciscus idus (dare or Golden)-> 1,000 mg/l-48 h Toxic to

daphnia and other aquatic invertebrates: Ec50 Daphnia magna (water Flea grande)-2850 mg/l-48 h for Toxic Algae

Desmodesmus subspicatus CI50-(green)-100 mg/l >-12:0 am Toxic to bacteria Lc50-Acinetobacter-1,170 mg/l-4:0 pm

C(E)L50 (mg/l) = 1300 1

1

Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl):

C(E)L50 (mg/l) = 2,4

NOEC (mg/l) = 0,07

Fatty acids, C18 unsatd., reaction products with triethanolamine, di-Me sulfate-quaternized:

fish, LC50: 1.91 mg / l (OECD 203 (96h) read-across)

daphnia, EC50: 2.23 mg / l (EU Method C.2 (48h) read-across)

alga, CI50: 2.14 mg / l (OECD 201 (72h) read-across)

seaweed, NOEC: 1.48 mg / l (OECD 201)

C(E)L50 (mg/l) = 1,48 1

1

Alcohols, C13-15, branched and linear, ethoxylated:

C(E)L50 (mg/l) = 1

propan-2-ol:

The less dense water product and completely miscible at 20 C.

Is lost by evaporation within one day. Large volumes can penetrate into the soil and contaminate groundwater.

C(E)L50 (mg/l) = 1000 1

1

diethanolamine:

The substance is harmful to aquatic organisms.

Aquatic toxic

Specification: EC50 (2.2-IMINODIETANOLO; CAS No.: 111-42-2)

Parametro: Daphnia

Daphnia magna

Value = 55 mg/l

For. test: 48 h

Specification: EC50 (2.2-IMINODIETANOLO; CAS No.: 111-42-2)

Parametro: Algae

Pseudokirchneriella subcapitata

Value = 2.2 mg/l

For. test: 96 h

Specification: LC50 (2.2-IMINODIETANOLO; CAS No.: 111-42-2)

Parametro: Fish

Pimephales promelas

Value = 1460 mg/l

For. test: 96 h

C(E)L50 (mg/l) = 2,2 1

1

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

C(E)L50 (mg/l) = 0,01

10

Alcohols, C12-14, ethoxylated:

EC50 < 1 mg/l (Literaturwert)

NOEC/21 d 0.77 mg/l (Daphnia magna)

C(E)L50 (mg/l) = 0,19

ethanol:

C(E)L50 (mg/l) = 11200

The product is dangerous for the environment as it is toxic to aquatic organisms following acute exposure.

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The substance miscible in water and would leach into the groundwater, be lost in groundwater and be biologically degraded.

85% (28 d, Ready Biodegradability: Modified MITI Test (s)) readily biodegradable

Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides:

Biodegradability:

OECD Confirmatory > 90% Test Method: OECD 303 A Modified SCAS Test Exposure time: 99% 7 d > Method: OECD Test 302 Evolution CO2 Concentration: 5 mg/litre Exposure time: 28 d Result: Readily biodegradable.

95.5% Method: OECD 301 B

12.3. Bioaccumulative potential

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The substance is not expected to bioaccumulate.

12.4. Mobility in soil

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

The high idrosolubilit and low octanol/water partition coefficient indicates that adsorption to suspended solids and sediments are not significant

12.5. Results of PBT and vPvB assessment

The product does not contain substances identified as PBT according to the criteria established by Regulation (EC) No.

1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as vPvB according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

12.6. Endocrine disrupting properties

The product does not contain substances identified as endocrine disruptors for human health according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

The product does not contain substances identified as endocrine disruptors for the environment according to the criteria established by Regulation (EC) No. 1272/2008, as amended by Regulation (EU) 2023/707.

12.7. Other adverse effects

No adverse effects

Regulation (EC) No 2006/907 - 2004/648

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

SECTION 13. Disposal considerations

13.1. Waste treatment methods

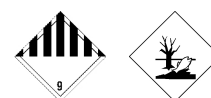
Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

SECTION 14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 3082



If subject to the following characteristics is ADR exempt:

Combination packagings: per inner packaging 5 L per package 30 kg

Inner packagings placed in shrink-wrapped or stretch-wrapped trays: per inner packaging 5 L per package 20 kg

14.2. UN proper shipping name

ADR/RID/IMDG: MATERIA PERICOLOSA PER L'AMBIENTE, LIQUIDA, N.A.S. (Isopropanolo, Composti di ammonio quaternario, benzil-C12-16-alkildimetil, cloruri, Alcoli, C12-14, etossilati, Eucalyptus oil span. rect, 70%, organic, Turpentine oil, etanolo, dipentene)

ADR/RID/IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (propan-2-ol, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, Alcohols, C12-14, ethoxylated, Eucalyptus globulus oil, turpentine, oil, ethanol, dipentene)

ICAO-IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (propan-2-ol, Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides, Alcohols, C12-14, ethoxylated, Eucalyptus globulus oil, turpentine, oil, ethanol, dipentene)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 9

ADR/RID/IMDG/ICAO-IATA: Label : 9 + Ambiente

ADR: Tunnel restriction code : --

ADR/RID/IMDG/ICAO-IATA: Limited quantities : 5 L

IMDG - EmS : F-A, S-F

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: III

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is environmentally hazardous

IMDG: Marine polluting agent : Yes

14.6. Special precautions for user

No data available.

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION 15. Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Related to contained substances:

2-(2-butoxyethoxy)ethanol:

Restrictions relating to the product or to substances contained in annex XVII to Regulation (EC) 1907/2006.

3 product section.

Substances.

Point. 55 BUTYL DIGLYCOL

DELEGATED REGULATION (EU) 2024/2564 (ATP XXII)

DELEGATED REGULATION (EU) 2023/707

Seveso category:

E2 - ENVIRONMENTAL HAZARDS

REGULATION (EU) No 1357/2014 - waste:

HP4 - Irritant — skin irritation and eye damage

Substances in the Candidate List (REACH Article 59)

Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

The supplier has made an assessment of chemical safety

SECTION 16. Other information**16.1. Other information**

Points modified compared to previous release: 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 3.2 Mixtures, 4.1. Description of first aid measures, 8.1. Control parameters, 9.2. Other information, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 11.2. Information on other hazards, 12.1. Toxicity, 12.2. Persistence and degradability, 12.5. Results of PBT and vPvB assessment, 12.6. Endocrine disrupting properties, 12.7. Other adverse effects, 13.1. Waste treatment methods, 14.1. UN number or ID number, 14.2. UN proper shipping name, 14.3. Transport hazard class(es), 14.4. Packing group, 14.5. Environmental hazards, 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Description of the hazard statements exposed to point 3

H319 = Causes serious eye irritation.
H315 = Causes skin irritation.
H318 = Causes serious eye damage.
H411 = Toxic to aquatic life with long lasting effects.
H412 = Harmful to aquatic life with long lasting effects.
H302 = Harmful if swallowed.
H225 = Highly flammable liquid and vapour.
H336 = May cause drowsiness or dizziness.
H361 = Suspected of damaging fertility or the unborn child .
H373 = May cause damage to organs through prolonged or repeated exposure .
H312 = Harmful in contact with skin.
H314 = Causes severe skin burns and eye damage.
H400 = Very toxic to aquatic life.
H410 = Very toxic to aquatic life with long lasting effects.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H315 - Causes skin irritation. Classification procedure: Calculation method
H318 - Causes serious eye damage. Classification procedure: Calculation method
H411 - Toxic to aquatic life with long lasting effects. Classification procedure: Calculation method

Main normative references:

Directive 1999/45/EC

Directive 2001/60/EC

Regulation (EC) No 1272/2008

Regulation (EU) No 453/2010

Regulation (EC) No 790/2009 (1st ATP CLP)

Regulation (EU) No 286/2011 (2nd ATP CLP)

Regulation (EU) No 618/2012 (3rd ATP CLP)

Regulation (EU) No 487/2013 (4th ATP CLP)

Regulation (EU) No 944/2013 (5th ATP CLP)

Regulation (EU) No 605/2014 (6th ATP CLP)

Regulation (EU) 2015/1221 (7th ATP CLP)

Regulation (EU) 2016/918 (8th ATP CLP)

Regulation (EU) 2016/1179 (9th ATP CLP)

Regulation (EU) 2017/776 (10th ATP CLP)

Regulation (EU) 2018/669 (11th ATP CLP)

Regulation (EU) 2019/521 (12th ATP CLP)

Delegated Regulation (EU) 2018/1480 (13th ATP CLP)

Delegated Regulation (EU) 2020/217 (14th ATP CLP)

Delegated Regulation (EU) 2020/1182 (15th ATP CLP)

Delegated Regulation (EU) 2021/643 (16th ATP CLP)

Delegated Regulation (EU) 2021/849 (17th ATP CLP)

Delegated Regulation (EU) 2022/692 (18th ATP CLP)

Delegated Regulation (EU) 2023/707 (Introduction of new hazard and endocrine classes)

Delegated Regulation (EU) 2023/1434 (19th ATP CLP)

Delegated Regulation (EU) 2023/1435 (20th ATP CLP)

Delegated Regulation (EU) 2024/197 (21st ATP CLP)

Delegated Regulation (EU) 2024/2564 (22nd ATP CLP)

Delegated Regulation (EU) 2025/1222 (23rd ATP CLP)

Databases consulted: ECHA (European Chemicals Agency), internal databases of raw materials provided by the respective manufacturers.

Legend of abbreviations and acronyms

(Q)SAR: (Quantitative) Structure-Activity Relationships

ACGIH / TWA: 8-hour time-weighted average

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

AIIC: Australian Inventory of Industrial Chemicals

ASTM: ASTM International (American Society for Testing and Materials)

ATE: Acute Toxicity Estimates

BCF: BioConcentration Factor

BEI: Biological Exposure Index

BOD: Biochemical Oxygen Demand

CAO: Cargo Aircraft Only

CAS: Chemical Abstracts Service number

CAV: Poison Control Center

CE: EC number (European inventory of Existing Commercial chemical Substances)

CLP: Regulation (EC) No 1272/2008

CMR: Carcinogenic, mutagenic or toxic for reproduction

COD: Chemical Oxygen Demand

CSA: Chemical Safety Assessment

CSR: Chemical Safety Report

DIN: German Institute for Standardization standard

DMEL: Derived Minimal Effect Level

DNEL: Derived No-Effect Level

DPD: Dangerous Preparations Directive

DSD: Dangerous Substances Directive

EC50: Effective Concentration to 50% of test population

ECHA: European Chemicals Agency

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

ELx: Loading rate associated with x% response

EmS: Emergency Schedule

ErCx: Concentration associated with x% growth rate response

GefStoffVO: Ordinance on Hazardous Substances, Germany

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GLP: Good Laboratory Practice

IARC: International Agency for Research on Cancer

IATA: International Air Transport Association

IATA DGR: Dangerous Goods Regulations of the International Air Transport Association

IBC: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

IC50: Inhibitory Concentration to 50% of test population

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the International Civil Aviation Organization

IMDG: International Maritime Dangerous Goods Code

IMO: International Maritime Organization

INCI: International Nomenclature of Cosmetic Ingredients

INDEX: Identification number in Annex VI of CLP

ISO: International Organization for Standardization

IT OEL CMR / Valori limite 8 ore: 8-hour limit values

IT OEL CMR / Valori limite breve durata: Short-term limit values

IT VLEP / STEL: Limit Values - Short Term

IT VLEP / TWA: Limit Values - 8 Hours

KSt: Explosion coefficient

LC50: Lethal Concentration 50%

LCLo: Lowest Lethal Concentration

LD50: Lethal Dose 50%

LOAEC: Lowest Observed Adverse Effect Concentration

LOAEL: Lowest Observed Adverse Effect Level

LOEC: Lowest Observed Effect Concentration

LOEL: Lowest Observed Effect Level

LTE: Long-term exposure

MAK: Maximum Allowable Concentration

MARPOL: International Convention for the Prevention of Pollution from Ships

NEN: Dutch standard

NOAEL: No Observed Adverse Effect Level

NOEC: No Observed Effect Concentration

NOEL: No Observed Effect Level

NOELR: No Observed Effect Loading Rate

OCSE (OECD): Organisation for Economic Co-operation and Development

OEL: Occupational Exposure Limit

OPPTS: Office of Pollution Prevention and Toxics

PBT: Persistent, Bioaccumulative and Toxic

PEC: Predicted Effect Concentration

PEL: Permissible Exposure Limit

PMT: Persistent, Mobile and Toxic

PNEC: Predicted No-Effect Concentration

PNOS: Particulates Not Otherwise Specified

REACH: Regulation (EC) No 1907/2006

RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail

SADT: Self-Accelerating Decomposition Temperature

SPM: Synthetic Polymer Microparticles

STA (ATE): Acute Toxicity Estimate

STE: Short-term exposure

STOT: Specific Target Organ Toxicity

SVHC: Substance of Very High Concern

ThOD: Theoretical Oxygen Demand

TLV: Threshold Limit Value

TLV CEILING: Concentration that should not be exceeded during any part of the working exposure

TWA STEL: Short-term exposure limit

TWATLV: Threshold Limit Value - Time Weighted Average (8-hour day)

UVCB: Substances of Unknown or Variable composition, Complex reaction products or Biological materials

VOC: Volatile Organic Compound

vPvB: Very Persistent and Very Bioaccumulative

vPvM: Very Persistent and Very Mobile

VwVwS: Administrative Regulation on Substances Hazardous to Waters

WGK: Water Hazard Class (Germany)

** The information contained herein is based on our knowledge at the date above.

Related solely to the product and do not constitute a guarantee of a particular quality.

It is the duty of the user to ensure that these are appropriate and complete information regarding the specific use intended.

This data sheet cancels and replaces any previous edition.
