

EM-300

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name: EM-300

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

Relevant identified uses of the substance or mixture: Precision Cleaning for Ultrasonic processes.

Removing of polishing compounds.

1.3. Details of the supplier of the safety data sheet

Registered company name: EMAG AG

Address: Gerauerstr. 34. D-64546 Moerfelden Walldorf

elephone:+49(0)6105-406750 a.emekci@emag-germany.de www.emag-germany.de

1.4. Emergency telephone number: Urgence 145 24h/24h.

Giftnotruf Berlin: +49 30 30686700 (german, english) Other emergency numbers

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Acute inhalation toxicity, Category 4 (Acute Tox. 4, H332).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Serious eye damage, Category 1 (Eye Dam. 1, H318).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

2.2. Label elements

Detergent mixture (see section 15).

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms:







GHS05

GHS07

Signal Word: DANGER

Product identifiers:

EC 931-329-6 AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL)

EC 614-295-4 ETHOXYLATED ALCOHOL SECONDARY C11-15

Hazard statements:

Causes skin irritation. H315 H318 Causes serious eye damage.

H332 Harmful if inhaled.

H411 Toxic to aquatic life with long lasting effects.



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Precautionary statements - Prevention:

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - 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.

P312 Call a POISON CENTER/doctor/... if you feel unwell.
P362 + P364 Take off contaminated clothing and wash it before reuse.

Precautionary statements - Storage :

P401 Store in accordance with the local regulation

Precautionary statements - Disposal:

P501 Dispose of contents/container in accordance with local regulation

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) \geq = 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition:

INDEX: 0160	Identification	(EC) 1272/2008	Note	%
EC: 931-329-6 REACH: 01-2119490100-53-0000 AMIDES, C8-18 AND C18(UNSATD.),N,N-BIS(HYDROXYETHYL) INDEX: 603_071_00_1 CAS: 111-42-2 EC: 203-868-0 REACH: 01-2119488930-28 REACH: 01-2119488930-28 Skin Irrit. 2, H315 Eye Dam. 1, H318 2,2-DIHYDROXYDIETHYLAMINE INDEX: 603_030_00_8 CAS: 141-43-5 EC: 205-483-3 REACH: 01-2119486455-28 REACH: 01-2119486455-28 Acute Tox. 4, H302 REACH: 01-2119486455-28 Acute Tox. 4, H312 Skin Corn. 1B, H314 2-AMINOETHANOL Acute Tox. 4, H332 INDEX: 0120 CAS: 141-43-5 Dgr Acute Tox. 4, H312 Skin Corn. 1B, H314 2-AMINOETHANOL Acute Tox. 4, H302 REACH: 01-2119972845-22 Eye Dam. 1, H318 1 <= x % < 2.5 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH	INDEX: 0160	GHS05, GHS09		10 <= x % < 25
REACH: 01-2119490100-53-0000 AMIDES, C8-18 AND C18(UNSATD.),N,N-BIS(HYDROXYETHYL) INDEX: 603_071_00_1 CAS: 111-42-2 EC: 203-868-0 REACH: 01-2119488930-28 REACH: 01-2119488930-28 CAS: 141-43-5 EC: 203-843-3 REACH: 01-2119486455-28 REACH: 01-2119486455-28 REACH: 01-2119486455-28 REACH: 01-2119486455-28 REACH: 01-2119486455-28 CAS: 139-89-9 EC: 205-381-9 REACH: 01-211972845-22 CAS: 61790-63-4 EYP Dam. 1, H318 Aquatic Chronic 1, H410 M Chronic = 1 GHS07, GHS05, GHS08 [1] 2.5 <= x % < 10 2.5 <= x % < 10 [1] 2.5 <= x % < 10 [2] Acute Tox. 4, H302 REACH: 01-2119486455-28 Acute Tox. 4, H312 Skin Corr. 1B, H314 Acute Tox. 4, H332 INDEX: 0120 CAS: 139-89-9 EC: 205-381-9 REACH: 01-2119972845-22 Eye Dam. 1, H318 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 EYENDAM: Acute Tox. 4, H315 Eye Irrit. 2, H315 Eye Irrit. 2, H315 Eye Irrit. 2, H315 Eye Irrit. 2, H319	CAS: 68155-07-7	Dgr		
Aquatic Chronic 1, H410 M Chronic = 1	EC: 931-329-6	Skin Irrit. 2, H315		
AMIDES, C8-18 AND C18(UNSATD),N,N-BIS(HYDROXYETHYL) GHS07, GHS05, GHS08 [1] 2.5 <= x % < 10	REACH: 01-2119490100-53-0000	Eye Dam. 1, H318		
C18(UNSATD.),N,N-BIS(HYDROXYETHYL) INDEX: 603_071_00_1		Aquatic Chronic 1, H410		
INDEX: 603_071_00_1	AMIDES, C8-18 AND	M Chronic = 1		
CAS: 111-42-2	C18(UNSATD.),N,N-BIS(HYDROXYETHYL)			
EC: 203-868-0 REACH: 01-2119488930-28 Skin Irrit. 2, H315 Eye Dam. 1, H318 2,2'-DIHYDROXYDIETHYLAMINE STOT RE 2, H373 INDEX: 603_030_00_8 CAS: 141-43-5 EC: 205-483-3 REACH: 01-2119486455-28 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 2-AMINOETHANOL Acute Tox. 4, H332 INDEX: 0120 CAS: 139-89-9 EC: 205-381-9 REACH: 01-2119972845-22 Eye Dam. 1, H318 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 Skin Irrit. 2, H315 Eye Irrit. 2, H319 FATTY ACIDS, COCO, COMPDS. WITH	INDEX: 603_071_00_1	GHS07, GHS05, GHS08	[1]	2.5 <= x % < 10
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2,2'-DIHYDROXYDIETHYLAMINE	REACH: 01-2119488930-28	Skin Irrit. 2, H315		
INDEX: 603_030_00_8		Eye Dam. 1, H318		
CAS: 141-43-5	2,2'-DIHYDROXYDIETHYLAMINE	STOT RE 2, H373		
EC: 205-483-3 REACH: 01-2119486455-28 Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Corr. 1B, H314 Acute Tox. 4, H332 INDEX: 0120 GHS07, GHS05 Dgr EC: 205-381-9 REACH: 01-2119972845-22 Eye Dam. 1, H318 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH	INDEX: 603_030_00_8	GHS07, GHS05	[1]	2.5 <= x % < 10
REACH: 01-2119486455-28 Acute Tox. 4, H312 Skin Corr. 1B, H314 Acute Tox. 4, H332 INDEX: 0120 GHS07, GHS05 Dgr EC: 205-381-9 REACH: 01-2119972845-22 Eye Dam. 1, H318 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH Acute Tox. 4, H302 Eye Dam. 1, H318 I <= x % < 2.5 Wng Skin Irrit. 2, H315 Eye Irrit. 2, H319	CAS: 141-43-5	Dgr		
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INDEX: 0120		Skin Corr. 1B, H314		
CAS: 139-89-9 EC: 205-381-9 REACH: 01-2119972845-22 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH Dgr Acute Tox. 4, H302 Eye Dam. 1, H318	2-AMINOETHANOL	Acute Tox. 4, H332		
EC: 205-381-9 REACH: 01-2119972845-22 HYDROXYETHYLETHYLENDIAMINTRIAC ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH Acute Tox. 4, H302 Eye Dam. 1, H318	INDEX: 0120	GHS07, GHS05		1 <= x % < 2.5
REACH: 01-2119972845-22 Eye Dam. 1, H318	CAS: 139-89-9			
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ETIC ACID, TRISODIUMSALT INDEX: 0012 CAS: 61790-63-4 EC: 263-153-4 FATTY ACIDS, COCO, COMPDS. WITH GHS07 Wng Skin Irrit. 2, H315 Eye Irrit. 2, H319	REACH: 01-2119972845-22	Eye Dam. 1, H318		
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EC: 263-153-4 Skin Irrit. 2, H315 Eye Irrit. 2, H319 FATTY ACIDS, COCO, COMPDS. WITH	INDEX: 0012	GHS07		1 <= x % < 2.5
FATTY ACIDS, COCO, COMPDS. WITH	CAS: 61790-63-4	Wng		
FATTY ACIDS, COCO, COMPDS. WITH	EC: 263-153-4	Skin Irrit. 2, H315		
		Eye Irrit. 2, H319		
DIETHANOLAMINE				
	DIETHANOLAMINE			



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INDEX: 0016	GHS07, GHS05	1 <= x % < 2.5
CAS: 68131-40-8	Dgr	
EC: 614-295-4	Acute Tox. 4, H302	
REACH: 01-2119560577-29-0000	Skin Irrit. 2, H315	
	Eye Dam. 1, H318	
ETHOXYLATED ALCOHOL SECONDARY	Acute Tox. 4, H332	
C11-15		

(Full text of H-phrases: see section 16)

Information on ingredients:

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation:

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

Do not proceed with mouth-to-mouth or mouth-to-nose resuscitation. Use the appropriate equipment.

In the event of splashes or contact with eyes:

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

Regardless of the initial state, refer the patient to an ophthalmologist and show him the label.

In the event of splashes or contact with skin:

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

If the contaminated area is widespread and/or there is damage to the skin, a doctor must be consulted or the patient transferred to hospital.

In the event of swallowing:

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

Suitable methods of extinction

In the event of a fire, use:

- sprayed water or water mist

Unsuitable methods of extinction

In the event of a fire, do not use:

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.



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In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- nitrogen oxide (NO)
- nitrogen dioxide (NO2)

5.3. Advice for firefighters

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Neutralise with an acidic decontaminant.

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Emergency showers and eye wash stations will be required in facilities where the mixture is handled constantly.

Fire prevention:

Handle in well-ventilated areas.

Prevent access by unauthorised personnel.

$\label{lem:Recommended} \textbf{Recommended equipment and procedures:}$

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid eye contact with this mixture at all times.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.



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7.2. Conditions for safe storage, including any incompatibilities

Stock between 5 °C and 40°C in a dry, well ventilated place

Storage

Keep the container tightly closed in a dry, well-ventilated place.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits:

- European Union (2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE):

CAS	VME-mg/m3:	VME-ppm:	VLE-mg/m3:	VLE-ppm:	Notes:
141-43-5	2.5	1	7.6	3	Peau

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010):

CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
111-42-2	1 (IFV) mg/m3			Skin; A3	
141-43-5	3 ppm	6 ppm			

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME:	Excess	Notes
111-42-2		0,11 ppm		1(I)
		0.5 mg/m^3		
141-43-5		0,2 ppm		1(I)
		0.5 mg/m^3		

- China (GBZ 2.1, 2007):

CAS	TWA:	STEL:	Anm:	TWA:	STEL:	Anm:
141-43-5	8 mg/m3	15 mg/m3				

- France (INRS - ED984 :2016) :

CAS	VME-ppm:	VME-mg/m3:	VLE-ppm:	VLE-mg/m3:	Notes:	TMP No:
111-42-2	3	15	-	-	-	49.49 Bis
141-43-5	1	2.5	3	7.6	-	49, 49 Bis

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

		,	,		
CAS	TWA:	STEL:	Ceiling:	Definition:	Criteria:
141-43-5	1 ppm 2.5 mg/m ³	3 ppm 7.6 mg/m ³		Sk	

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Final use:Exposure method:
Workers.
Inhalation.

Potential health effects: Long term local effects.

DNEL: 10 mg of substance/m3

AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL) (CAS: 68155-07-7)

Final use: Workers.

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 4.16 mg/kg body weight/day

Exposure method: Dermal contact.



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Potential health effects: Long term local effects.

DNEL: 0.09 mg of substance/cm2

Exposure method: Inhalation.

Potential health effects: Long term systemic effects.

DNEL: 73.4 mg of substance/m3

Final use: Consumers.

Exposure method: Ingestion.

Potential health effects: Long term systemic effects.

DNEL: 6.25 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term systemic effects.

DNEL: 2.5 mg/kg body weight/day

Exposure method: Dermal contact.

Potential health effects: Long term local effects.

DNEL: 0.056 mg of substance/cm2

Exposure method: Inhalation.

Potential health effects: Long term systemic effects. DNEL: 21.73 mg of substance/m3

Predicted no effect concentration (PNEC):

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Environmental compartment: Fresh water. PNEC : 2.5 mg/l

Environmental compartment: Sea water. PNEC: 0.25 mg/l

Environmental compartment: Intermittent waste water.

PNEC: 50 mg/l

AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL) (CAS: 68155-07-7)

Environmental compartment: Fresh water. PNEC : $7 \mu g/l$

Environmental compartment: Sea water. PNEC : $0.7 \ \mu g/l$

Environmental compartment: Intermittent waste water.

PNEC : $24\,\mu\text{g/l}$

Environmental compartment: Waste water treatment plant.

PNEC: 0.83 g/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.



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- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended:

- Butyl Rubber (Isobutylene-isoprene copolymer)
- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

Recommended properties:

- Impervious gloves in accordance with standard EN374

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing:

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034 to prevent skin contact.

Wear suitable protective clothing and, in particular, an apron and boots. These items of clothing shall be maintained in good condition and cleaned after use.

Suitable type of protective boots:

In the event of minor spatter, wear protective boots or half-boots against chemical risks in accordance with standard EN13832-2.

In the event of prolonged contact, wear boots or half-boots with liquid-chemical-resistant and waterproof soles and uppers in accordance with standard EN13832-3.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing vapours.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387:

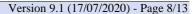
- A1 (Brown)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information:

Physical state: Viscous liquid.
Color: yellow/orange
Odour: caracteristic





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Important health, safety and environmental information

pH: Not stated.

Slightly basic.

pH (aqueous solution): 10.10

Boiling point/boiling range: Not specified. Flash point interval: Not relevant. Vapour pressure (50°C): Not relevant. Density: 1.025 Miscibility: 100% Water solubility: Dilutable. Melting point/melting range: Not specified. Not specified. Self-ignition temperature : Decomposition point/decomposition range: Not specified.

% VOC: 0

9.2. Other information

VOC(g/l): 0.00

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

No data available.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form:

- carbon monoxide (CO)
- carbon dioxide (CO2)
- nitrogen oxide (NO)
- nitrogen dioxide (NO2)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

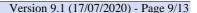
Harmful by inhalation.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have irreversible effects on the eyes, such as tissue damage in the eye, or serious physical decay of sight, which is not fully reversible by the end of observation at 21 days.

Serious eye damage is typified by the destruction of cornea, persistent corneal opacity and iritis.





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11.1.1. Substances

Acute toxicity:

ETHOXYLATED ALCOHOL SECONDARY C11-15 (CAS: 68131-40-8)

Oral route : LD50 = 412 mg/kg

Species: Rat

Dermal route : LD50 > 14000 mg/kg

Species: Rat

Inhalation route (n/a) : LC50 = 1.06 mg/l

Species: Rat

FATTY ACIDS, COCO, COMPDS. WITH DIETHANOLAMINE (CAS: 61790-63-4)

Oral route: LD50 = 2780 mg/kg

Species: Rat

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Oral route: LD50 = 1612 mg/kg

Species: Rat

OECD Guideline 401 (Acute Oral Toxicity)

Inhalation route (n/a): LC50 > 3.95 mg/l

Species: Rat

OECD Guideline 403 (Acute Inhalation Toxicity)

2-AMINOETHANOL (CAS: 141-43-5)

Oral route: LD50 = 1089 mg/kg

Species: Rat

Inhalation route (n/a): LC50 > 1.48 mg/l

Species: Rat

2,2'-DIHYDROXYDIETHYLAMINE (CAS: 111-42-2)

Oral route : LD50 < 1600 mg/kg

Species: Rat

AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL) (CAS: 68155-07-7)

Oral route: LD50 > 5000 mg/kg

Species: Rat

 $Dermal \ route: LD50 > 2000 \ mg/kg$

Species : Rat

Skin corrosion/skin irritation:

 $HYDROXYETHYLETHYLENDIAMINTRIACETIC\ ACID,\ TRISODIUMSALT\ (CAS:\ 139-89-9)$

Species: Rabbit

OECD Guideline 404 (Acute Dermal Irritation / Corrosion)

Respiratory or skin sensitisation:

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Guinea Pig Maximisation Test (GMPT): Non-sensitiser.

Species: Guinea pig

OECD Guideline 406 (Skin Sensitisation)



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11.1.2. Mixture

No toxicological data available for the mixture.

Monograph(s) from the IARC (International Agency for Research on Cancer):

CAS 111-42-2: IARC Group 2B: The agent is possibly carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

2-AMINOETHANOL (CAS: 141-43-5)

Crustacean toxicity: EC50 = 65 mg/l

Species: Daphnia magna Duration of exposure: 48 h

ETHOXYLATED ALCOHOL SECONDARY C11-15 (CAS: 68131-40-8)

Fish toxicity: LC50 = 3.4 mg/l

Species : Pimephales promelas Duration of exposure : 96 h

Crustacean toxicity: EC50 = 7.3 mg/l

Species : Daphnia magna Duration of exposure : 48 h

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Fish toxicity : LC50 > 100 mg/l

Species : Others

Duration of exposure: 96 h

OECD Guideline 203 (Fish, Acute Toxicity Test)

NOEC > 25.7 mg/l Species : Danio rerio

Duration of exposure: 35 days

OECD Guideline 210 (Fish, Early-Life Stage Toxicity Test)

Crustacean toxicity: EC50 > 100 mg/l

Species : Daphnia magna Duration of exposure : 48 h

Algae toxicity: ECr50 > 100 mg/l

Species : Scenedesmus sp. Duration of exposure : 72 h

AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL) (CAS: 68155-07-7)

Fish toxicity: LC50 = 2.4 mg/l

Crustacean toxicity: EC50 = 3.2 mg/l

NOEC = 0.07 mg/lFactor M = 1

Algae toxicity: ECr50 = 3.9 mg/l



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12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

ETHOXYLATED ALCOHOL SECONDARY C11-15 (CAS: 68131-40-8)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

HYDROXYETHYLETHYLENDIAMINTRIACETIC ACID, TRISODIUMSALT (CAS: 139-89-9)

Biodegradability: Non-rapidly degradable.

2-AMINOETHANOL (CAS: 141-43-5)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly

AMIDES, C8-18 AND C18(UNSATD.), N, N-BIS(HYDROXYETHYL) (CAS: 68155-07-7)

Biodegradability: no degradability data is available, the substance is considered as not degrading

quickly.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws):

WGK 2: Hazardous for water.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2019).

14.1. UN number

3082

14.2. UN proper shipping name

UN3082=ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(amides, c8-18 and c18(unsatd.),n,n-bis(hydroxyethyl))



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14.3. Transport hazard class(es)

- Classification:



14.4. Packing group

III

14.5. Environmental hazards

- Environmentally hazardous material :



14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	9	M6	III	9	90	5 L	274 335 375	E1	3	-
							601			

Not subject to this regulation if $Q \le 51/5 \text{ kg}$ (ADR 3.3.1 - DS 375)

Ι	MDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage	Segregation
									Handling	
		9	-	III	5 L	F-A, S-F	274 335 969	E1	Category A	-

Not subject to this regulation if $Q \le 51/5$ kg (IMDG 3.3.1 - 2.10.2.7)

IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ
	9	9	III	964	450 L	964	450 L	A97 A158	E1
								A197	
	9	9	III	Y964	30 kg G	-	-	A97 A158	E1
								A197	

Not subject to this regulation if $Q \le 51/5 \text{ kg}$ (IATA 4.4.4 - DS A197)

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

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

No data available.

SECTION 15: REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/669 (ATP 11)

- Container information:

No data available.

- Particular provisions :

No data available.

- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws):

WGK 2: Hazardous for water.

15.2. Chemical safety assessment

No data available.



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SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3:

vvoluing of the phrases mentioned in section s	•
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure .
H410	Very toxic to aquatic life with long lasting effects.

Abbreviations:

DNEL: Derived No-Effect Level

PNEC: Predicted No-Effect Concentration

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods. IATA : International Air Transport Association. ICAO : International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

 $WGK: Wasserge fahrdungsklasse \ (Water\ Hazard\ Class).$

GHS05: Corrosion

GHS07 : Exclamation mark GHS09 : Environment

PBT: Persistent, bioaccumulable and toxic. vPvB: Very persistent, very bioaccumulable. SVHC: Substances of very high concern.