

Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 1 of 23

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

1.1. Product identifier

ACMOS 103-30

QHC5-RNNU-FDS6-DVQ6 HEL

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

Relevant identified uses

Release agent

Uses advised against

Consumer uses: Private households (= general public = consumers)

Sector of uses [SU]: 21

Do not use for private purposes (household).

Relevant identified uses - Further information:

Industrial uses: Uses of substances as such or in preparations at industrial sites

Sector of uses [SU]: 3

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

Sector of uses [SU]: 22

The product is intended for professional use.

In compliance with the conditions described in the annex to this safety data sheet.

Summary of registered and identified uses and their respective exposure scenarios: see annex to this safety data sheet.

See section 16 for a comprehensive list of uses, for which an exposure scenarion is provided as an annex.

1.3. Details of the supplier of the safety data sheet

Manufacturer

ACMOS CHEMIE KG Company name: Industriestrasse 49 Street: Place: D-28199 Bremen 10 10 69 Post-office box:

D-28010 Bremen

+49 (0)421-5189-0 Telefax: +49 (0)421-511415 Telephone:

acmos@acmos.com F-mail Contact person: Mr. Stephan Dryhaus sds@acmos.com F-mail·

www.acmos.com Internet:

1.4. Emergency telephone number: +44 111 (Emergency information service / official advisory body: National Poisons

Information Service - NPIS Birmingham) (https://www.npis.org)

Language(s) of Telephone Service: EN

Laboratory (Division: Occupational- / Product security) - see under section 16

Supplier

Responsible Department:

ACMOS CHEMIE KG Company name: Street: Industriestrasse 49 Place: D-28199 Bremen 10 10 69 Post-office box:

D-28010 Bremen

+49 (0)421-5189-0 Telephone: Telefax: +49 (0)421-511415

E-mail: acmos@acmos.com Mr. Stephan Dryhaus Contact person: E-mail: sds@acmos.com www.acmos.com Internet:

Laboratory (Division: Occupational- / Product security) - see under section 16 Responsible Department: 1.4. Emergency telephone number: +44 111 (Emergency information service / official advisory body: National Poisons

Information Service - NPIS Birmingham) (https://www.npis.org)

Language(s) of Telephone Service: EN

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 2 of 23

GB CLP Regulation

Eye Irrit. 2; H319 Aquatic Acute 1; H400 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

GB CLP Regulation

Signal word: Warning

Pictograms:





Hazard statements

H319 Causes serious eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements

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

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

2.3. Other hazards

Adverse physicochemical effects:

See section 9 for physical and chemical properties.

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

See section 11 for toxicological information.

Adverse environmental effects:

See section 12 for environmental information.

Other adverse effects:

Special danger of slipping by leaking/spilling product.

Results of PBT-/vPvB-assesment:

See under section 12.5 - Results of PBT and vPvB assessment.

Endocrine disrupting properties:

See under section 11.2 + 12.6 - Endocrine disrupting properties.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Solution of active ingredients in mineral oil



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 3 of 23

Hazardous components

CAS No	Chemical name	hemical name					
	EC No	Index No REACH No					
	Classification (GB CLP Regulation)						
124-30-1	octadecylamine						
	204-695-3 612-282-00-8 01-2119473804-32						
	Skin Irrit. 2, Eye Dam. 1, STOT RE 2, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H315 H318 H373 H304 H400 H410						

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity			
	Specific Conc. Limits, M-factors and ATE					
124-30-1	204-695-3	octadecylamine				
	dermal: LD50 = > 2000 mg/kg; oral: LD50 = 2395 mg/kg Aquatic Acute 1; H400: M=10 Aquatic Chronic 1; H410: M=10					

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove affected person from the danger area and lay down.

Take off immediately all contaminated clothing and wash it before reuse.

Put victim at rest, cover with a blanket and keep warm.

Do not leave affected person unattended.

If a person vomits when lying on his back, place him in the recovery position.

If breathing is irregular or stopped, administer artificial respiration.

If unconscious but breathing normally, place in recovery position and seek medical advice.

Never give anything by mouth to an unconscious person or a person with cramps.

In the event of cardiac arrest immediately perform cardiopulmonary resuscitation.

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Self-protection of the first aider:

Wear personal protection equipment (refer to section 8).

First Aid.

Notes for the doctor:

No special measures are necessary.

After inhalation

Remove victim out of the danger area.

Provide fresh air.

In case of respiratory tract irritation, consult a physician.

After contact with skin

Wash immediately with:

Water and soap

Rub greasy ointment into the skin.

Do not wash with:

Solvents/Thinner

In case of skin irritation, consult a physician.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

After ingestion

Do NOT induce vomiting.

Give nothing to eat or drink.





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 4 of 23

Never give anything by mouth to an unconscious person or a person with cramps.

Call a physician immediately.

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

The following symptoms may occur:

No known symptoms to date.

Further information see under section 11.1 - Information on hazard classes as defined in Regulation (EC) No

1272/2008.

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

Water mist

Extinguishing powder (ABC-powder)

Foam

Carbon dioxide (CO2)

Fire class (EN 2): B (Fires of liquids or liquid turning substances)

Unsuitable extinguishing media

Full water jet

Water spray jet

5.2. Special hazards arising from the substance or mixture

In principle, fire gasses of organic materials have to be classified as toxic to the respiratory system.

Burning produces heavy smoke.

Hazardous combustion products:

Carbon monoxide

carbon dioxide (CO2)

Hydrocarbons

Nitrogen oxides (NOx)

Pyrolysis products, toxic

5.3. Advice for firefighters

Usual measures of preventive and averting fire protection.

Co-ordinate fire-fighting measures to the fire surroundings.

Do not inhale explosion and combustion gases.

Move to fresh air in case of accidental inhalation of fumes from overheating or combustion.

Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.

Move undamaged containers from immediate hazard area if it can be done safely.

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control.

Use water spray jet to protect personnel and to cool endangered containers.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

DIN-/EN-Norms EN 469

Firefighting protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Avoid contact with skin, eyes and clothes.

Do not breathe vapour/aerosol.

Prevent further leakage or spillage if safe to do so.

Provide adequate ventilation.

Special danger of slipping by leaking/spilling product.



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 5 of 23

For non-emergency personnel

Use personal protection equipment.

Walk out of the danger zone and notify trained personnel.

Emergency procedures: Keep the factory emergency plan and the information chain.

For emergency responders

Use personal protection equipment.

The personal protective equipment must be adapted to the situation.

Suitable material:

See under section 8.2 - Personal protection equipment.

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

Ensure waste is collected and contained.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment

Repair leaks if without risk.

Move containers from spill area.

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Remove from the water surface (e.g. skimming, sucking).

For cleaning up

Large amounts of spillages:

Shovel into suitable container for disposal.

Local authorities should be advised if significant spillages cannot be contained.

Small amounts of spillages:

Clear spills immediately.

Wipe up with absorbent material (eg. cloth, fleece).

Collect in closed and suitable containers for disposal.

Clear contaminated areas thoroughly.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Retain contaminated washing water and dispose it.

Ensure all waste water is collected and treated via a waste water treatment plant.

Ventilate affected area.

Other information

Suitable material for taking up:

Sand

Kieselguhr

Universal binder

Absorbing material, organic

Unsuitable material for taking up:

None known

6.4. Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Measures to prevent aerosol and dust generation:

All work processes must always be designed so that the following is as low as possible:

Eye contact

Skin contact

Technical ventilation of workplace



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 6 of 23

Provide room air exhaust at ground level.

During filling, metering and sampling should be used if possible:

Devices with local exhaust

Filtered air may be re-circulated into the workroom.

Always close containers tightly after the removal of product.

Use long handled brushes and rollers.

Advice on protection against fire and explosion

Measures to prevent fire:

The product is: Combustible

Usual measures for fire prevention.

Fire-fighting equipment on the basis of class B.

Advice on general occupational hygiene

Advices on general occupational hygiene:

Wear personal protection equipment (refer to section 8).

Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

General industrial hygiene practice.

Handle in accordance with good industrial hygiene and safety practice.

Working places should be designed to allow cleaning at any time.

Floors, walls and other surfaces in the hazard area must be cleaned regularly.

Clean spray booth and exhaust hood completely with every product change.

When using do not eat, drink, smoke, sniff.

Thorough skin-cleansing after handling the product.

Used working clothes should not be worn outside the work area.

Further information on handling

Environmental precautions:

Shafts and sewers must be protected from entry of the product.

Transfer wash-downs in sealed containers.

Provide for retaining containers, e.g. floor pan without outflow.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Suitable floor material:

Floors should be impervious, resistant to liquids and easy to clean.

Protect against:

Heat

Cold

Recommended storage temperature: +10 ... +30 °C

Keep away from:

Food and feedingstuffs

Packaging materials:

Suitable container/equipment material:

Keep/Store only in original container.

Unsuitable container/equipment material:

See under section 8.2 - Hand protection.

Hints on joint storage

Do not store together with:

Storage class:

1 (Explosive hazardous substances)

6.2 (Infectious substances)

7 (Radioactive substances)

Further information on storage conditions

Technical measures and storage conditions:

The valid water and zoning ordinances must be observed.

Keep in a cool, well-ventilated place.

Keep container tightly closed.



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 7 of 23

Protect containers against damage.

Ensure adequate ventilation of the storage area.

Do not store outside.

See also instuctions on the label.

7.3. Specific end use(s)

Recommendation:

Possibilities for substitution and references to less hazardous products:

This product was designed for a special application purpose and optimized appropriately.

In case of questions regarding product and application, please contact our field service in line with customer service or our technical sales department.

Observe technical data sheet.

Industrial sector specific solutions:

Hazardous substance information systems of professional associations:

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

DNEL/DMEL values

CAS No	Substance						
DNEL type		Exposure route	Effect	Value			
124-30-1 octadecylamine							
Worker DNEL,		dermal		0,09 mg/kg bw/day			
Worker DNEL,		inhalation	ation 0,38 mg/m				
Consumer DNEL	,	oral		0,04 mg/kg bw/day			

PNEC values

CAS No	Substance					
Environmental	compartment	Value				
124-30-1 octadecylamine						
Freshwater 0,00026 mg/l						
Marine water		0,000026 mg/l				
Freshwater sed	0,1794 mg/kg					
Marine sediment 0,0						
Micro-organisms in sewage treatment plants (STP) 0,55 mg/l						
Soil 10 mg/kg						

Additional advice on limit values

GESTIS - International Limit Values - Institut für Arbeitsschutz der Deutschen Gesetzlichen Unfallversicherung (IFA):

http://limitvalue.ifa.dguv.de

Country information (EU)

(http://www.dguv.de/ifa/fachinfos/occupational-exposure-limit-values/foreign-and-eu-limit-values/index.jsp)

Country information (GB) (http://www.hse.gov.uk/pubns/books/eh40.htm)

Occupational Exposure Limits of EU-memberstates - European Agency for Safety and Health at Work (OSHA)

(http://osha.europa.eu/en/topics/ds/oel/index.stm/members.stm)

Source of law: EH40 (GB) (http://www.hse.gov.uk)

Recommended monitoring procedures:

Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents (BS EN 14042):

Personal air monitoring

Room air monitoring

Exposure limits at intended use:





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 8 of 23

See under section 8.1 - Occupational exposure limit values.

DNEL-/PNEC-values:

Further information: see exposure scenarios attached to this safety data sheet.

Risk management measures according to used control banding approach:

Control banding for chemicals according to the ILO CHEMICAL CONTROL TOOLKIT (ICCT): ICCT-Guidelines and Control Guidance Sheets (http://www.ilo.org/legacy/english/protection/safework/ctrl banding/toolkit/main guide.pdf)

Used model:

Consider appropriate model solutions according to good engineering practices on designing the working process, if available.

8.2. Exposure controls





Appropriate engineering controls

Substance/mixture related measures to prevent exposure during identified uses:

Technical measures to prevent exposure:

Design of appropriate work processes and engineering controls and the use of adequate materials (working appliance according to the state of the art, working appliance for prevention of skin contact).

Organisational measures to prevent exposure:

Execution of collective protection measures at source and appropriate organisational measures (local exhaust ventilation, ventilation by technical means, general ventilation, measures on averting a danger at breakdowns / at emergencies / after accidents, first-aid-measures, manner related measures: operating instruction / instruction of employees).

Structural measures to prevent exposure:

Execution of individual and personnel protection measures (personal protective equipment - PPE).

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Technical measures and the application of suitable work processes have priority over personal protection equipment.

References for design of technical equipment:

See under section 7.1 - Precautions for safe handling.

Summary of the risk management measures for exposure scenario:

Use only the following product amount per time unit:

No information available.

Minimum room-width and room-height for handling/application:

No information available.

Minimum room ventilation rate for handling/application (air changes per hour):

No information available.

Individual protection measures, such as personal protective equipment

Eye/face protection

If required according to hazard assessment:

Suitable eye protection:

Eye glasses with side protection (EN 166)

Recommended eye protection articles:

UVEX I-VO / UVEX I-3 / UVEX SUPER OTG

Or comparable articles from other companies.

Hand protection

Skin protection:

Preventive skin protection.:





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 9 of 23

Draw up skin protection programme.

Before starting work, apply solvent-resistant skincare preparations.

e.g. sansibal® / sansibon®, dualin® (PETER GREVEN PHYSIODERM)

Wash hands before breaks and after work.

e.g. ecosan®, topscrub® soft / topscrub® extra / topscrub® nature (PETER GREVEN PHYSIODERM)

After cleaning apply high-fat content skin care cream.

e.g. physioderm® creme, cura soft® / cUrea soft® (PETER GREVEN PHYSIODERM)

Apply skin care products after work.

If required according to hazard assessment:

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Decrease wearing protection gloves to an inevitable degree to avoid skin rash.

Technical and organizational protective actions have to be preferred.

Breakthrough times and swelling properties of the material must be taken into consideration.

Check leak tightness/impermeability prior to use.

Wear cotton undermitten if possible.

Change preventive gloves once by hour or use special skin-protective preparations for protective gloves carrier,

e.g. physioderm® proGlove (PETER GREVEN PHYSIODERM)

Take recovery periods for skin regeneration.

Do not wear gloves near rotary machines and tools.

Dispose preventive gloves after defect or expiry of wearing time. Replace when worn.

In the case of wanting to use the gloves again, clean them before taking off and air them well.

Wearing time with permanent contact:

Suitable gloves type

Gloves with long cuffs

Recommended glove articles:

Suitable materials at long term, direct contact (Recommended: Preventive index 6, accordingly > 480 min. permeation time in accordance to EN 374):

Nitrile rubber / NBR (KCL-CAMATRIL VELOURS® - Art. No. 730) - Layer thickness: 0,4 mm

Or comparable articles from other companies.

Unsuitable material:

Butyl caoutchouc (butyl rubber)

NR (natural rubber, Natural latex)

Wearing time with occasional contact (splashes):

Suitable gloves type

Disposable gloves

Recommended glove articles:

Suitable materials at short term contact or splash (Recommended: Preventive index 3, accordingly > 60 min. permeation time in accordance to EN 374):

Disposable gloves of special nitrile rubber / NBR (KCL-DERMATRIL® P - Art. No. 743) - Layer thickness: 0,2 mm Or comparable articles from other companies.

The statements are based on self-tests, literary reference and information of glove manufacturers or have been derived from similar substances by analogy.

Source: CHEMIKALIEN-MANAGER - KCL software for hand protection.

It has to be noticed, that daily time of use of chemical protective gloves may be quite shorter in practice because of many factors of influence (e.g. thermal and mechanical stress as well as special conditions on the floor) than the permeation time determined in accordance to EN 374.

The respective permeation time doubles/halvens at about 1,5 times larger/lower layer thickness.

Declared permeation times according to EN 374 are not carried out under practical conditions. Therefore a maximum wearing time up to 50 % of breakthrough time is recommended.



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 10 of 23

They relate to the pure solvent as mean component.

Barrier creams are not substitutes for body protection.

Skin protection

If required according to hazard assessment:

Suitable protective clothing:

Overall, Natural fibres (e.g. cotton) (EN 340)

Chemical resistant safety shoes with conductible sole (EN ISO 20345)

Wash contaminated clothing prior to re-use.

Used working clothes should not be worn outside the work area.

Street clothing should be stored separately from work clothing.

Respiratory protection

Usually no personal respirative protection necessary.

Thermal hazards

No thermal hazards during use of this product.

Environmental exposure controls

Environmental exposure controls:

Technical measures to prevent exposure:

Discharge exhaust air only with suitable seperators to atmosphere.

Organisational measures to prevent exposure:

Should not be released into the environment.

Structural measures to prevent exposure:

Use the following recovery and/or abatement technique for cleaning waste gases:

none

Further information see under section 6.2 - Environmental precautions.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Paste
Colour: light yellow
Odour: characteristic
Odour threshold: No data available

Test method

Melting point/freezing point: not determined

Boiling point or initial boiling point and boiling > 300 °C literature value

range:

Flammability

Solid/liquid: The product is: Flammable
Lower explosion limits: not relevant
Upper explosion limits: not relevant

Flash point: $> 100 \, ^{\circ}\text{C}$ EN ISO 2719 Auto-ignition temperature: $> 200 \, ^{\circ}\text{C}$ literature value

Decomposition temperature: Thermally stable.
pH-Value: not applicable
Viscosity / kinematic: not applicable

Water solubility: practically insoluble: < 0,1 g/L literature value

(at 20 °C)

Solubility in other solvents

miscible with most organic solvents

Dissolution rate: (Nanoform) not relevant
Partition coefficient n-octanol/water: not applicable (Mixtures)
Dispersion stability: (Nanoform) not relevant

Vapour pressure: < 1 hPa literature value

(at 20 °C)





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 11 of 23

Vapour pressure: < 6 hPa literature value

(at 50 °C)

Density (at 20 °C): 0,9 g/cm³ DIN 51757

Relative density: not determined sulk density: not determined not determined Relative vapour density: not determined Particle characteristics: not determined not determine

9.2. Other information

Explosive properties not relevant

Self-ignition temperature

Solid: Not pyrophoric.
Gas: Not pyrophoric.

Other safety characteristics

Evaporation rate: not applicable
Solvent separation test: not applicable
Solvent content: not determined
Solid content: not determined
Sublimation point: not determined

Softening point: > 38 °C ASTM D 4359

Pour point: not determined Viscosity / dynamic: not applicable Flow time: not applicable

Further Information

Other safety characteristics:

Mechanical sensitivity: No ignition, explosion, self-heating or visible decomposition.

miscibility: miscible with most organic solvents Conductivity (ASTM D 2624): not determined

Corrosiveness: not applicable Redox potential: not determined

radical formation potential: not applicable photocatalytic properties: not applicable Surface tension: not applicable (solid) Molecular weight: not applicable (Mixtures)

Data relevant with regard to physical hazard classes (supplemental):

Explosives

not applicable

Flammable gases

Non-flammable. / not applicable (solid)

Aerosols

Non-flammable. / not applicable (solid)

Oxidising gas

Not oxidising. / not applicable (solid)

Gases under pressure

not applicable (solid)

Flammable liquids

Non-flammable. / not applicable (solid)

Flammable solids

Non-flammable.

Self-reactive substances and mixtures

not applicable

Pyrophoric liquids

Not pyrophoric. / not applicable (solid)

Pyrophoric solids



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 12 of 23

Not pyrophoric.

Self-heating substances and mixtures

not applicable

Substances or mixtures which, in contact with water, emit flammable gases

not applicable

Oxidising liquids

Not oxidising. / not applicable (solid)

Oxidising solids

Not oxidising.

Organic peroxides

not applicable

Corrosive to metals.

Not corrosive to metals.

Desensitised explosives

not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Further information see under section 7.2 - Conditions for safe storage, including any incompatibilities.

Further information see under section 10.5 - Incompatible materials.

10.5. Incompatible materials

Violent reaction with:

Oxidising agent, strong

Further information see under section 7.1 - Precautions for safe handling.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

No known hazardous decomposition products.

Under fire conditions: See under section 5.2 - Special hazards arising from the substance or mixture.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation

Toxicocinetics, metabolism and distribution

There are no data available on the preparation/mixture itself.

The product has not been tested.

Information on likely routes of exposure /

Symptoms related to the physical, chemical and toxicological characteristics:

See under section 4.2 - Most important symptoms and effects, both acute and delayed.

Exposure route:

In case of ingestion:

Ingestion causes nausea, weakness and central nervous system effects.

Due to the viscosity, this product does not present an aspiration hazard.

In case of skin contact:

slightly irritant but not relevant for classification.

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation).

In case of inhalation:

slightly irritant but not relevant for classification.



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 13 of 23

In case of eye contact:

irritant.

Conjunctival redness.

Delayed and immediate effects as well as chronic effects from short and long-term exposure:

Not relevant

Interactive effects:

Not relevant

Absence of specific data:

No data is available on the product itself. Description of possible hazardous to health effects is based on experience and/or toxicological characteristics of several components.

However, some datas are not complete regarding particular main components. Nevertheless according to the experience of the manufacturer there are no other hazards expected then those which are already mentioned on the label.

Mixture versus substance information:

Not relevant

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name	Chemical name						
	Exposure route Dose			Species	Source	Method		
124-30-1	octadecylamine	octadecylamine						
	oral	LD50 mg/kg	2395	Rat	Supplier	OECD 401		
	dermal	LD50 mg/kg	> 2000	Rat	Supplier / ECHA	OECD 402		

Irritation and corrosivity

Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.

Aspiration hazard

Based on available data, the classification criteria are not met.

Information on likely routes of exposure

oral: +
Dermal: +
inhalation: +
Eye contact: +

11.2. Information on other hazards

Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 14 of 23

Acute (short-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to aquatic invertebrates:

There are no data available on the preparation/mixture itself. The product has not been tested.

Acute (short-term) toxicity to algae and cyanobacteria:

There are no data available on the preparation/mixture itself. The product has not been tested.

Chronic (long-term) toxicity to aquatic invertebrate:

There are no data available on the preparation/mixture itself. The product has not been tested. Chronic (long-term) fish toxicity:

There are no data available on the preparation/mixture itself. The product has not been tested.

Toxicity to other aquatic plants/organisms:

No data available (Substances/Ingredient)

Terrestrial toxicity:

Acute and subchronic bird toxicity:

No data available (Substances/Ingredient)

Bird reproduction toxicity:

No data available (Substances/Ingredient)

Acute earthworm toxicity:

No data available (Substances/Ingredient)

Chronical earthworm toxicity (reproduction):

No data available (Substances/Ingredient)

Useful insect toxicity:

No data available (Substances/Ingredient)

Acute plant toxicity:

No data available (Substances/Ingredient)

Chronic plant toxicity:

No data available (Substances/Ingredient)

Toxicity to soil macroorganisms except of arthropods:

No data available (Substances/Ingredient)

Effects on soil microorganisms:

No data available (Substances/Ingredient)

Behaviour in waste water treatment plants:

Due to its low solubility in water the product is almost completely mechanically separated in biological sewage plants. Observe local regulations concerning effluent treatment.

CAS No	Chemical name								
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method		
124-30-1	octadecylamine								
	Acute fish toxicity	LC50	1 - 10 mg/l	96 h	Fish	Supplier	OECD 203		
	Acute algae toxicity	ErC50 mg/l	0,12 - 62	72 h	Algae	Supplier	OECD 201		
	Acute crustacea toxicity	EC50	130 mg/l	48 h	Daphnia magna	Supplier	OECD 202		
	Acute bacteria toxicity	(EC50 mg/l)	7 - 90	3 h	Activated sludge	ECHA	OECD 209		

12.2. Persistence and degradability

Abiotic degradation:

Physicochemical elimination:

Oxidation:

not applicable (Mixtures)

Hydrolysis:

not applicable (Mixtures)

Photochemical elimination:

Photolysis:



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 15 of 23

not applicable (Mixtures)

Ozonolysis:

not applicable (Mixtures)

Biodegradation:

not applicable (Mixtures)

CAS No	Chemical name						
	Method	Value	d	Source			
	Evaluation						
124-30-1	octadecylamine						
	OECD 301 F	70 %	28	Supplier / ECHA			
	readily biodegradable						

12.3. Bioaccumulative potential

not applicable (Mixtures)

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
124-30-1	octadecylamine	7,7

BCF

CAS No	Chemical name	BCF	Species	Source
124-30-1	octadecylamine	173		ECHA

12.4. Mobility in soil

Surface tension:

See under section 9.1 - Information on basic physical and chemical properties.

Distribution:

Water-air (volatility rate, Henry-constant):

not applicable (Mixtures)

Soil-Water (Adsorption coefficient):

not applicable (Mixtures)

Soil-Air (volatility rate):

not applicable (Mixtures)

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7. Other adverse effects

Ozone depletion potential (ODP):

No data available (Substances/Ingredient)

Photochemical ozone creation potential (POCP):

No data available (Substances/Ingredient)

Global warming potential (GWP):

No data available (Substances/Ingredient)

AOX: Product does not contain any organic halogens

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste treatment options (Recovery operations / Disposal operations):

Send to a hazardous waste incinerator facility under observation of official regulations.

Dispose of waste according to applicable legislation.

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Hazardous waste according to Directive 2008/98/EC (waste framework directive).





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 16 of 23

Properties of waste which render it hazardous:

Irritant — skin irritation and eye damage [HP 4]

Ecotoxic [HP 14]

Evidence for disposal must be provided.

Consult the appropriate local waste disposal expert about waste disposal.

Waste for recycling is to be classified and labelled.

For recycling, contact recycling exchanges.

May not be disposed or deposited together with domestic garbage.

Do not mix with other wastes.

Do not flush into surface water or sanitary sewer system.

Do not dispose of waste into sewer.

Before discharge in public drains (e.g. residues of washing- and rinsing liquids) please observe the relevant regulations. In case of further questions please contact your waste- or environmental representative or the responsible authority.

Clean IBCs or drums at approved facility only.

The waste producer is resposible for correct coding and designation of his wastes.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

The waste code has to be identified in agreement with the disposal company or the competent authority.

List of proposed waste codes/waste designations in accordance with EWC:

List of Wastes Code - residues/unused products

120107 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND

PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; mineral-based machining oils free of halogens (except emulsions and solutions); hazardous waste

List of Wastes Code - used product

120107 WASTES FROM SHAPING AND PHYSICAL AND MECHANICAL SURFACE TREATMENT OF METALS AND

PLASTICS; wastes from shaping and physical and mechanical surface treatment of metals and plastics; mineral-based machining oils free of halogens (except emulsions and solutions); hazardous waste

List of Wastes Code - contaminated packaging

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING

NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste);

packaging containing residues of or contaminated by hazardous substances; hazardous waste

Contaminated packaging

Other disposal recommendations:

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Cleaning by recycling company.

Recommended cleansing agent:

Clean with detergents. Avoid solvent cleaners.

Handle contaminated packages in the same way as the substance itself.

Non-contaminated packages may be recycled.

Packing which cannot be properly cleaned must be disposed of.

The conditions of the regional reconditioning companies have to be observed

SECTION 14: Transport information



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 17 of 23

Land transport (ADR/RID)

14.1. UN number or ID number: UN3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyl amines)

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Classification code: M7

Special Provisions: 274 335 375 601

Limited quantity: 5 kg
Excepted quantity: E1
Transport category: 3
Hazard No: 90
Tunnel restriction code: -

Other applicable information (land transport)

Provision(s), multilateral agreement(s): Not applicable

Maximum permissible total quantity per unit of carriage according to subsection 1.1.3.6 ADR/RID: 1000 kg. Factor out of category of carriage (= 3) to calculate the quantity per unit of carriage: 1.

Tactor out or category or carriago (o) to calculate the quantity por

Inland waterways transport (ADN)

Other applicable information (inland waterways transport)

Not classified for this transport carrier.

Marine transport (IMDG)

14.1. UN number or ID number: UN3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyl amines)

14.3. Transport hazard class(es):914.4. Packing group:IIIHazard label:9



Marine pollutant:

Special Provisions: 274, 335, 966, 967, 969

Limited quantity: 5 kg

Excepted quantity: E1

EmS: F-A, S-F

Segregation group: IMDG-Code segregation group not applicable

Other applicable information (marine transport)

Exception(s): Not applicable





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 18 of 23

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: UN3077

14.2. UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Alkyl amines)

14.3. Transport hazard class(es):
14.4. Packing group:
Hazard label:

||| |9

Special Provisions: A97 A158 A179 A197

Limited quantity Passenger: 30 kg G
Passenger LQ: Y956
Excepted quantity: E1

IATA-packing instructions - Passenger:956IATA-max. quantity - Passenger:400 kgIATA-packing instructions - Cargo:956IATA-max. quantity - Cargo:400 kg

Other applicable information (air transport)

ERG Kodex: 9L

The state variations in chapter 2.8.1 and the operator variations in chapter 2.8.3 for shipping of dangerous goods in limited quantities according to chapter 2.7 of the valid ICAO/IATA Dangerous Goods Regulations have to be observed.

The rulings for dangerous goods by air mail according to chapter 2.4 of the valid ICAO/IATA Dangerous Goods Regulations and the conventions of the Universal Postal Union (UPU) as well as the clauses of the relevant National Postal Administration have to be observed. Airmail: prohibited.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

Danger releasing substance: Alkyl amines

14.6. Special precautions for user

Further information see under section 6, 7, 8.

14.7. Maritime transport in bulk according to IMO instruments

No bulk transport in accordance with IBC code.

It is sold exclusively in traffic legally authorized and appropriate packaging.

Other applicable information

Postal, express and courier services:

Postal service (national):

Express freight / special delivery:

Refer to your National Postal Administation.

Courier service (national):

The general conditions of business of the particular courier service have to be observed.

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 75

2010/75/EU (VOC): 0 % (0 g/l)

Additional information

Authorisations and/or restrictions on use:

Authorisations:

Authorisation of Chemicals (REACH) as regards Annex XIV:

not relevant Restrictions on use:





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 19 of 23

Restriction of chemicals (REACH) as regards annex XVII:

No. 75 - Substances in mixtures for use in tattooing

Informations on Regulation (EC) No. 1272/2008 - Annex VI, Part 1:

Note L is valid: The harmonised classification as a carcinogen applies unless it can be shown that the substance contains less than 3 % of dimethyl sulphoxide extract as measured by IP 346 ("Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions – Dimethyl sulphoxide extraction refractive index method"Institute of Petroleum, London), in which case a classification in accordance with Title II of this Regulation shall be performed also for that hazard class.

Other regulations (EU):

Regulation (EC) No. 1005/2009 - Substances that deplete the ozone layer:

not relevant

Regulation (EC) No. 648/2004 and No 907/2006 - Detergents:

not relevant

Regulation (EC) No. 649/2012 - Export and import of dangerous chemicals:

not relevant

Regulation (EU) 2019/1021 - Persistent organic pollutants:

not relevant

Regulation (EC) No. 428/2009 and No. 388/2012 and No. 1382/2014 - Control of exports, or transfer, brokering and transit of dual-use goods (Dual-Use Regulation):

not relevant

Regulation (EC) No. 273/2004 - Drug precursors:

not relevan

Regulation (EC) No. 111/2005 - Definition of rules for the monitoring of trade in drug precursors between the Union and third countries:

not relevant

Regulation (EU) 2019/1148 - Marketing and use of precursors for explosives:

Annex I - Restricted explosives precursors:

not relevant

Annex II - Notification requirements for explosives precursors:

not relevant

Directive 2012/18/EC - Control of major accident hazards involving dangerous substances (Seveso III):

ANNEX I, PART 1 (Categories of dangerous substances):

E1 (ENVIRONMENTAL HAZARDS) - Hazardous to the Aquatic Environment in Category Acute 1 or Chronic 1 (Column 1)

Quantities: > 100.000 kg (Column 2) /> 200.000 kg (Column 3)

Directive 2004/42/EC - Use of organic solvents in certain paints and lacquers:

not relevant

Directive 2010/75/EU - Industrial Emissions Directive (Directive IE) - succession to Directive 1999/13/EC - Limitation of emissions of volatile organic compounds (VOC-Directive):

When using this substance / mixture it has to be checked whether the activities are subject to the the requirements of IE-RL, Chapter V (installations and activities with the use of organic solvents - VOC).

Aerosol Directive (75/324/):

not relevant

Biocide directive (98/8/EC):

not relevant

Regulation (EU) No. 528/2012 on biocides:

not relevant

Observe in addition any national regulations!

EC-Chemical inventories: All ingredients are listed in EINECS / ELINCS or excepted from listing.

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 20 of 23

Additional information

Other regulations, restrictions and prohibition regulations:

European product inventories (Registration status on mixtures):

Kemikalieinspektionen / Produktregistret / Swedish Chemicals Inspectorate - Keml (http://www.kemi.se):

This product was not registered.

Schweizerische Eidgenossenschaft - Bundesamt für Gesundheit - BAG (http://www.bag.admin.ch) / Anmeldestelle Chemikalien (http://www.cheminfo.ch) / Informationssystem für gefährliche und umweltrelevante Stoffe - IGS (http://igs.naz.ch/index.html):

This product was registered.

International chemical inventories (Registration status on substances): No data available

A downstream user chemical safety assessment according to REACH (article 37.4) was performed for the following substance(s):

octadecylamine, EC-No.: 204-695-3

Links to the annexed exposure scenarios (ES) according to REACH (article 31.7):

Short title: Manufacture of plastics products, including compounding and conversation (industrial application).

ODA-DU-ES2

Short title: Manufacture of plastics products, including compounding and conversation (professional application). ODA-DU-ES4

15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out: octadecylamine

SECTION 16: Other information

Changes

This version replaces all former issues.

Changes made in this revision see section: 2, 4, 6, 7, 8, 9, 11, 12, 13, 14, 15, 16.

Abbreviations and acronyms

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.

ATE: Acute Toxicity Estimate.

CAS: Chemical Abstracts Service.

CEN: Comité Européen de Normalisation (European Committee for Standardisation).

CLP: Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008.

CMR: Carcinogen, Mutagen, or Reproductive Toxicant.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

C&L: Classification & Labeling.

DNEL: Derived No-Effect Level.

EAK: European Waste Catalogue (replaced by LoW - see below).

EC50: Effective concentration, 50 percent.

ECHA: European Chemicals Agency.

EC: European community.





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 21 of 23

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European standard.

EWC: European Economic Community.

EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).

EU: European Union.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals. IATA-DGR: International Air Transport Association Dangerous Goods Regulations.

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

(International Bulk Chemical Code).

IC50 / ErC50: Inhibitory concentration, 50 percent.

ICAO-TI: International Cicil Aviation Organization Technical Instruction.

IMDG: International Maritime Dangerous Goods.

ISO: A standard of International Standards Organisation.

IUPAC: International Union for Pure and Applied Chemistry.

LC50: Lethal concentration, 50 percent.

LD50: Lethal Dose, 50 percent.

log Kow (Pow): octanol-water partition coefficient.

LoW: List of Wastes (see http://ec.europa.eu/environment/waste/framework/list.htm).

MARPOL: Maritime Polluntion Convention (Convention for the Prevention of Pollution from Ships).

OC: Operational Conditions.

OECD: Organisation for Economic Co-operation and Development.

OSHA: Occupational Safety and Health Agency.

PBT: Persistent, bioaccumulabe and toxic.

PEC: Predicted Effect Concentration.

PNEC: Predicted No-Effect Concentration.

PPE: Personal Protection Equipment.

(Q)SAR: Quantitative-Structure-Activity-Relationship.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals; Regulation (EC) No 1907/2006.

RID: Regulations concerning the International Carriage of Dangerous Goods by Rail.

RMM: Risk Management Measure.

SVHC: Substances of Very High Concern.

STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.

STOT - SE: Specific Target Organ Toxicity - Single Exposure.

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

vPvB: Very persistent and very bioaccumulable.

WoE: Weight of Evidence.

For abbreviations and acronyms, see table at http://abbrev.esdscom.eu

Key literature references and sources for data



Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 22 of 23

The classification corresponds to current EC-lists, but is completed by statements of technical literature and company data.

Other public accessible sources:

Regulation (EC) No. 1907/2006 (REACH) in the valid version in each case Regulation (EC) No. 1272/2008 (CLP) in the valid version in each case

Further information and practical guides on the internet:

European Chemicals Agency - ECHA (http://echa.europa.eu)

ECHA - Information on Chemicals (http://echa.europa.eu/information-on-chemicals)

ECHA - Candidate List of Substances of Very High Concern for Authorisation

(http://echa.europa.eu/de/candidate-list-table)

ECHA - List of restrictions table

(http://echa.europa.eu/de/addressing-chemicals-of-concern/restrictions/list-of-restrictions/list-of-restrictions-table)

ECHA - Authorisation List

(http://echa.europa.eu/hr/addressing-chemicals-of-concern/authorisation/recommendation-for-inclusion-in-the-authoris ation-list/authorisation-list)

ECHA - C&L Inventory (http://echa.europa.eu/en/web/guest/regulations/clp/cl-inventory)

eChemPortal (http://www.echemportal.org)

The access to European Union law - EUR-Lex (http://eur-lex.europa.eu)

Health and Safety Executive (http://www.hse.gov.uk) / Control of Substances Hazardous to Health Regulations - COSHH (http://www.coshh-essentials.org.uk/Home.asp)

Pollution Prevention and Control Act and Pollution Prevention and Control Regulations

Classification for mixtures and used evaluation method according to GB CLP Regulation

Classification	Classification procedure
Eye Irrit. 2; H319	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	Calculation method

R

Relevant H and El	JH statements (num	nber and full text)	
H304	May be fat	al if swallowed and enters airways.	
H315	Causes sk	in irritation.	
H318	Causes se	rious eye damage.	
H319	Causes se	erious eye irritation.	
H373	May cause	e damage to organs through prolonged or repeated exposure.	

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

Further Information

Full text of all R-, H-, EUH-phrases which are referred to in section 2 and 3 of this safety data sheet - see previous list. These (this) R-, H-, EUH-phrases/R-, H-, EUH-phrase apply/applies to the substance(s) of content, however, it does not necessarily show the classification of the product.

Recommended restriction of application:

See under section 1.2 - Uses advised against.

Use this product only for intended purpose in accordance with our product informations.

Please refer to our internet website for more information (http://www.acmos.com).

Training advice:

Yearly briefing and instruction of employees by means of operating instructions according to article 8 of EC-directive 98/24/FC

Inquiry office: Laboratory (Division: Occupational-/Product security)

Contact person: Mr. Dryhaus (Telephone: +49-421-5189-0, Telefax: +49-421-5189-871)

Office hours: Mo - Th from 7.30 - 16.15 h and Fr from 7.30 - 13.30 h. Out of office hours no call diversion.

Disclaimer:

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The information contained herein are, to our knowledge at the time





Information following the respective legal area

ACMOS 103-30

Revision date: 11.07.2023 Page 23 of 23

of their creation to be correct and been taken from sources deemed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release The receiver of our product is singularly responsible for adhering to existing laws and regulations. All descriptions are approximate values, they are not specified for construction of specifications. This safety data sheet does not represent any operating instruction according to national chemical regulations. It may be used for creation, but must not replace it. The employer is not relieved from his duties. All technical information to occupational protection are directed predominately to experts first (safety engineers, occupational medicines).

Identified uses

No	Short title	LCS	SU	PC	PROC	ERC	AC	TF	Specification
1	Manufacture of plastics products, including compounding and conversion (industrial application)	IS	12	24	7, 9, 10	4	-	-	ODA-DU-ES2
2	Manufacture of plastics products, including compounding and conversion (professional application)	PW	-	-	9, 10, 11	4	-	-	ODA-DU-ES4

LCS: Life cycle stages PC: Product categories

ERC: Environmental release categories

TF: Technical functions

SU: Sectors of use PROC: Process categories AC: Article categories