Revision: 12.04.2023



# Safety data sheet according to 1907/2006/EC, Article 31 Commission regulation (EU) 2020/878

Printing date 12.04.2023

Version number 9.0 (replaces version 8.0)

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

- · 1.1 Product identifier
- · Trade name: Ethyl acetate, Pharmpur®, Ph Eur, BP, NF
- · Article number: AC0143
- · CAS Number:

141-78-6

· EC number:

205-500-4

· Index number:

607-022-00-5

- 1.2 Relevant identified uses of the substance or mixture and uses advised against No further relevant information available.
- · Application of the substance / the preparation: Laboratory reagent
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

Regional representation:

Scharlab, S.L.

C/Gato Pérez, 33. Pol.Ind. Mas d'en Cisa 08181 Sentmenat (Barcelona) SPAIN

Tel: (+34) 93 745 64 00 - FAX: (+34) 93 715 27 65

email: scharlab@scharlab.com Internet Web Site: www.scharlab.com

- · Further information obtainable from: Technical Department
- · 1.4 Emergency telephone number:

Please contact the regional Scharlab distributor/dealer in your country During normal opening times: Scharlab, S.L. (+34) 93 715 18 11

### **SECTION 2: Hazards identification**

- · 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



Skin Corr. 1 H314 Causes severe skin burns and eye damage.



Eye Irrit. 2 H319 Causes serious eye irritation. STOT SE 3 H336 May cause drowsiness or dizziness.

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- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The substance is classified and labelled according to the GB CLP regulation.

· Hazard pictograms







GHS02 GHS05 GHS07

- · Signal word Danger
- · Hazard statements

H225 Highly flammable liquid and vapour.

H314 Causes severe skin burns and eye damage.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition

sources. No smoking

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin

with water [or shower].

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.

P370+P378 In case of fire: Use CO2, powder or water spray to extinguish.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/

international regulations.

· Additional information:

EUH066 Repeated exposure may cause skin dryness or cracking.

- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · **vPvB**: Not applicable.

### **SECTION 3: Composition/information on ingredients**

- · 3.1 Substances
- · CAS No. Description
- 141-78-6 ethyl acetate
- · Identification number(s)
- · EC number: 205-500-4
- · Index number: 607-022-00-5

# **SECTION 4: First aid measures**

- · 4.1 Description of first aid measures
- · General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

Seek medical treatment.

· After inhalation: Supply fresh air; consult doctor in case of complaints.

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#### · After skin contact:

Generally the product does not irritate the skin.

Immediately wash with water and soap and rinse thoroughly.

Immediately remove all contaminated clothing.

Wash contaminated clothing before reuse.

### · After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. If the casualty wears contact lenses, they should be removed as long as they are not stuck to the eyes, otherwise additional damage may occur.

### After swallowing:

Rinse out mouth and then drink plenty of water.

Do not induce vomiting, danger of perforation.

Never give anything by mouth to an unconscious person.

If the affected person vomits, keep the head down so that the vomit does not enter the lungs.

### · 4.2 Most important symptoms and effects, both acute and delayed

The main symptoms are described for the different cases of contact: skin, eyes, inhalation and ingestion.

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

## **SECTION 5: Firefighting measures**

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: CO2, sand, extinguishing powder. Do not use water.
- · For safety reasons unsuitable extinguishing agents:

Water with full jet

Water

### · 5.2 Special hazards arising from the substance or mixture

Vapours may create explosive mixtures with air.

Vapours are heavier than air and spread along the ground.

Prevent any contact with combustible substances.

Do not breathe fire or explosion gases.

In case of incomplete combustion, carbon monoxide (CO) may be formed.

- · 5.3 Advice for firefighters
- · Protective equipment:

Respiratory protection and full chemical protective clothing must be provided for extinguishing work. Cool exposed containers by water spray or water mist.

### - Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

### **SECTION 6: Accidental release measures**

### · 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources.

Eliminate all sources of ignition.

Avoid contact with skin, eyes and clothing.

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation

Wear protective equipment. Keep unprotected persons away.

- · 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

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#### · 6.4 Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

### **SECTION 7: Handling and storage**

### · 7.1 Precautions for safe handling

Keep receptacles tightly sealed.

Store in cool, dry place in tightly closed receptacles.

Do not eat, drink or smoke during use.

Wash hands after handling.

## · Information about fire - and explosion protection:

Use explosion-proof apparatus / fittings and spark-proof tools.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

### · 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

### · Requirements to be met by storerooms and receptacles:

Store in a cool, dry and well-ventilated place.

Store only in unopened original receptacles.

Suitable material for receptacles and pipes: steel or stainless steel.

Store in a cool location.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

See product's label for recommended storage temperature.

· 7.3 Specific end use(s) No further relevant information available.

### **SECTION 8: Exposure controls/personal protection**

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:

### 141-78-6 ethyl acetate

WEL Short-term value: 1468 mg/m³, 400 ppm Long-term value: 734 mg/m³, 200 ppm

**DNELs** 

DNEL consumer, prolonged. Systematic effects:

- Inhalative: 367 mg/m3

- Dermic: 37 mg/kg body weight

- Oral: 4.5 mg/kg body weight

DNEL consumer, acute. Local effects: Inhalative - 734 mg/m3
DNEL consumer, acute. Systematic effects: Inhalative - 734 mg/m3

DNEL for workers, cronic. Systematic effects:

Inhalative: 734 mg/m3

- Dermic: 63 mg/kg body weight

DNEL worker, cronic. Acute local and systematic effects: Inhalative - 1468 mg/m3

· PNECs

PNEC (Fresh water): 0.24 mg/L PNEC (Sea water): 0.024 mg/L

PNEC (Intermittent Release): 1.65 mg/l PNEC (Freshwater sediments): 1.15 mg/kg

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PNEC (Seawater sediments): 0.115 mg/kg

PNEC (Soil): 0.148 mg/kg

PNEC (Residual water depuration system): 650 mg/l

· Additional information: The lists valid during the making were used as basis.

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

- · Respiratory protection: Not required.
- Hand protection

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

-83 °C

77-78 °C

Highly flammable.

Eye/face protection



### **SECTION 9: Physical and chemical properties**

- · 9.1 Information on basic physical and chemical properties
- · General Information

**Flammability** 

Physical state Fluid Colourless Colour: Odour: Fruit-like Odour threshold: Not determined.

Melting point/freezing point:

Boiling point or initial boiling point and

boiling range

· Lower and upper explosion limit

· Lower: 2.1 Vol % · Upper: 11.5 Vol % · Flash point: -4 °C · Ignition temperature: 460 °C Decomposition temperature: Not determined.

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· Viscosity:

Kinematic viscosity
 Dynamic at 20 °C:
 Not determined.
 0.44 mPas

· Solubility

· water at 20 °C: 79 g/l

· Partition coefficient n-octanol/water (log

value) Not determined.

· Vapour pressure at 20 °C: 100 hPa

· Density and/or relative density

Density at 20 °C:
 Relative density
 Vapour density
 O.902 g/cm³
 Not determined.
 Not determined.

· 9.2 Other information

· Appearance:

· Form:

· Important information on protection of health and environment, and on safety.

Auto-ignition temperature: Not determined.

• Explosive properties: Product is not explosive. However, formation of

explosive air/vapour mixtures are possible.

• Molecular weight 88 g/mol

· Change in condition

· Evaporation rate Not determined.

Information with regard to physical hazard classes

Explosives
Flammable gases
Aerosols
Oxidising gases
Gases under pressure

Void
Void
Void

• Flammable liquids Highly flammable liquid and vapour.

Flammable solids
 Self-reactive substances and mixtures
 Pyrophoric liquids
 Pyrophoric solids
 Self-heating substances and mixtures
 Substances and mixtures, which emit flammable gases in contact with water
 Oxidising liquids
 Void

flammable gases in contact with water

Oxidising liquids

Oxidising solids

Organic peroxides

Corrosive to metals

Desensitised explosives

Void

## **SECTION 10: Stability and reactivity**

- · 10.1 Reactivity No further relevant information available.
- · 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided:

No decomposition if used according to specifications.

Can be distilled without decomposing at normal pressure.

- · 10.3 Possibility of hazardous reactions Violent reactions with strong alkalis and oxidising agents.
- · 10.4 Conditions to avoid Heat, flame and sparks

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· 10.5 Incompatible materials:

Strong acids

Strong bases

Strong oxidising agents.

· 10.6 Hazardous decomposition products:

No dangerous decomposition products known.

Ethanoic acid

In case of fire, formation of carbon monoxide CO and carbon dioxide CO2.

# **SECTION 11: Toxicological information**

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity
- · LD/LC50 values relevant for classification:

Oral LD50 5,620 mg/kg (rabbit)

Dermal LD50 >18,000 mg/kg (rabbit)

Inhalative LC50/4 h 56 mg/l (rat)

- · Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye irritation.
- · STOT-single exposure May cause drowsiness or dizziness.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties Substance is not listed.

## **SECTION 12: Ecological information**

- · 12.1 Toxicity
- · Aquatic toxicity:

Toxicity to fish

LC50 - Pimephales promelas (Fathead piscardo) - 230 mg/L - 96 h

Toxicity to daphnia and other aquatic invertebrates

EC50 - Daphnia magna (large sea flea) - 610 mg/L - 48 h

NOEC - Daphnia magna (large sea flea) - 21 mg/L - 2.4h

Toxicity to algae

EC50 - Scenedesmus subspicatus - 5600 mg/l - 48 h

· 12.2 Persistence and degradability

Rapid photochemical oxidation in air.

Fully biodegradable.

· 12.3 Bioaccumulative potential

Due to the distribution coefficient n-octanol/water an accumulation in organisms is possible.

- 12.4 Mobility in soil No further relevant information available.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Endocrine disrupting properties

The product does not contain substances with endocrine disrupting properties.

- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Rinse off of bigger amounts into drains or the aquatic environment may lead to increased pH-values. A high pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably reduced, so that after the use of the product the aqueous waste, emptied into drains, is (Contd. on page 8)



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only low water-dangerous.

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### **SECTION 13: Disposal considerations**

- · 13.1 Waste treatment methods
- · Recommendation

When mixed with other products, other disposal routes may be necessary.

In case of doubt, seek advice from the supplier of the product or the local authorities.

Must be specially treated adhering to official regulations.

Separate the polluting water by means of a separating funnel and dispose of it in accordance with the directives of the competent official bodies.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packaging:
- · Recommendation:

Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

Dispose of packaging according to regulations on the disposal of packagings.

# **SECTION 14: Transport information**

· 14.1 UN number or ID number

· ADR, IMDG, IATA UN1173

· 14.2 UN proper shipping name

· ADR
· IMDG, IATA

1173 ETHYL ACETATE
ETHYL ACETATE

· 14.3 Transport hazard class(es)

· ADR, IMDG, IATA



· Class 3 Flammable liquids.

Label 3

14.4 Packing group

· ADR, IMDG, IATA

· 14.5 Environmental hazards:

· Marine pollutant:

14.6 Special precautions for user Warning: Flammable liquids.

· Hazard identification number (Kemler code): 33 · EMS Number: F-E,S-D

Stowage Category

· 14.7 Maritime transport in bulk according to

**IMO instruments** Not applicable.

· Transport/Additional information:

· ADR

Limited quantities (LQ)
 Transport category
 Tunnel restriction code

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· UN "Model Regulation":

UN 1173 ETHYL ACETATE, 3, II

# **SECTION 15: Regulatory information**

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I -
- Seveso category P5c FLAMMABLE LIQUIDS
- · Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- · Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

### **SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Product Safety Department
- · Contact: msds@scharlab.com
- · Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

DNEL: Derived No-Effect Level (UK REACH)

PNEC: Predicted No-Effect Concentration (UK REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2

Skin Corr. 1: Skin corrosion/irritation - Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

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### **Annex: Exposure scenario 1**

- · 1 Short title of the exposure scenario Industrial use
- Sector of Use

SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites

- · Process category PROC15 Use as laboratory reagent
- · Environmental release category

ERC4 Use of non-reactive processing aid at industrial site (no inclusion into or onto article)

- · Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet.
- · 2 Conditions of use
- · Duration and frequency

Days of issuance (days/year): 300

5 workdays/week.

- Worker Permanent use with exposure up to 8 hrs every work day of the week.
- · Environment

Wastewater must be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.

- · Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity

5000 tons per year

17 kg per day

- Other operational conditions
- · Other operational conditions affecting environmental exposure

Fraction released to the air by the process (initial release prior to MGR): 1

Fraction released into the wastewater by the process (initial release prior to MGR): 1

Fraction released to the soil by the process (initial release prior to MGR): 0.2

· Other operational conditions affecting worker exposure

Use is assumed at a temperature not more than 20°C above ambient temperature.

Avoid contact with eyes.

Take precautionary measures against static discharge.

- · Risk management measures
- Worker protection
- Organisational protective measures

Keep good industrial hygiene.

Dike storage facilities to prevent soil and water contamination in case of spillage.

Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Tightly sealed goggles

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Air No special measures required.
- · Water No special measures required.
- · Soil No special measures required.

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#### · Disposal measures

Estimate of the amount that has gone to waste treatment, not greater than: 5 % Forward for special waste incineration in compliance with local legal provisions.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

External recovery of waste. Appropriate treatment type: redistillation.

### · 3 - Exposure estimation

- · Worker (dermal) PROC 15: 0.34 (mg/kg/d)
- · Worker (inhalation) PROC 15: 30 (mg/m3)

### Environment

The highest environmental exposure to be expected in purification plants is 0.822 mg / L.

The highest environmental exposure to be expected for surface waters is 0.0851 mg / L.

The maximum exposure to expect on freshwater (sediment) 0.113 mg/L. RCR: 0.403

Maximum concentration/emission: Seawater 0.0085 mg/l

The maximum exposure to expect on marine water (sediment) 0.0013 mg/L. RCR: 0.0403

The maximum exposure to expect on agricultural soil 0.0002 mg/L. RCR: 0.0007

### · 4 - Guidance for downstream users

Whether the downstream user acts within the scope of the Exposure Scenario can be verified based on the information in sections 1 to 8.

Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

Inhalation (vapour). From an exposure of 1 to 4 hours to an exposure of more than 4 hours, multiply by 1.7.

For the risk assessment, the tools recommended by ECHA can be used.

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### **Annex: Exposure scenario 2**

- · 1 Short title of the exposure scenario Laboratory use
- · Sector of Use

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

- · Process category PROC15 Use as laboratory reagent
- · Environmental release category

ERC8a Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor)

- Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet.
- · 2 Conditions of use
- · Duration and frequency

Days of issuance (days/year): 300

5 workdays/week.

- · Worker Permanent use with exposure up to 8 hrs every work day of the week.
- · Environment

Wastewater must be treated by a municipal STP. Municipal STP discharge rate <2E3 m3/d.

- · Physical parameters
- · Physical state Fluid
- · Concentration of the substance in the mixture Raw material.
- · Used amount per time or activity

5000 tons per year

17 kg per day

- · Other operational conditions
- · Other operational conditions affecting environmental exposure

Fraction released to the air by the process (initial release prior to MGR): 1

Fraction released into the wastewater by the process (initial release prior to MGR): 1

Fraction released to the soil by the process (initial release prior to MGR): 0.2

· Other operational conditions affecting worker exposure

Use is assumed at a temperature not more than 20°C above ambient temperature.

Avoid contact with eyes.

Take precautionary measures against static discharge.

- · Risk management measures
- Worker protection
- · Organisational protective measures

Keep good industrial hygiene.

Dike storage facilities to prevent soil and water contamination in case of spillage.

· Technical protective measures

Provide explosion-proof electrical equipment.

Ensure that suitable extractors are available on processing machines

· Personal protective measures

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes.

Tightly sealed goggles

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Air No special measures required.
- · Water No special measures required.

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· Soil No special measures required.

### · Disposal measures

Estimate of the amount that has gone to waste treatment, not greater than: 5 % Forward for special waste incineration in compliance with local legal provisions.

Disposal must be made according to official regulations.

Ensure that waste is collected and contained.

External recovery of waste. Appropriate treatment type: redistillation.

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Whether the downstream user uses the substance / the mixture within the scope of the Exposure Scenario can be determined by means of a technical assessment.

Inhalation (vapour). From an exposure of 1 to 4 hours to an exposure of more than 4 hours, multiply by 1.7.

For the risk assessment, the tools recommended by ECHA can be used.