# *Safety Data Sheet*

*according to Regulation (EC) No. 1907/2006 (REACH)*

| *Revision date: 24.08.2022* | *Version: 7.2* | *Print date: 24.08.2022* |
|---|---|---|

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

### 1.1 Product identifier

| | |
|---|---|
| Trade name/designation: | Ethyl Acetate GPR RECTAPUR® |
| Product No.: | 23880 |
| CAS No.: | 141-78-6 |
| Index No.: | 607-022-00-5 |
| EU REACH No.: | 01-2119475103-46-XXXX |
| Other means of identification: | Acetic acid ethyl ester |

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

| | |
|---|---|
| Relevant identified uses: | General chemical reagent |

### 1.3 Details of the supplier of the safety data sheet

*United Kingdom*

***VWR International Ltd.***

| | |
|---|---|
| Street | Hunter Boulevard, Magna Park |
| Postal code/City | Lutterworth, LE17 4XN |
| Telephone | 0800 22 33 44 |
| Telefax | 01455 55 85 86 |
| E-mail (competent person) | SDS@avantorsciences.com |

### 1.4 Emergency phone number

| | |
|---|---|
| Telephone | +44 (0) 1270 502894 (CareChem24) |

## SECTION 2: Hazard identification

### 2.1 Classification of the substance or mixture

### 2.1.1 Classification according to Regulation (EC) No 1272/2008 [CLP]

| Hazard classes and hazard categories | Hazard statements |
|---|---|
| Flammable liquid, category 2 | H225 |
| Eye irritation, category 2 | H319 |
| Specific target organ toxicity (single exposure), category 3, narcotic effect | H336 |

### 2.2 Label elements

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

**Hazard pictograms**



**Signal word:** Danger

| Hazard statements | |
|---|---|
| H225 | Highly flammable liquid and vapour. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |
| EUH066 | Repeated exposure may cause skin dryness or cracking. |

| Precautionary statements | |
|---|---|
| P210 | Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. |
| P280 | Wear protective gloves/protective clothing/eye protection/face 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. |

### 2.3 Other hazards

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

## SECTION 3: Composition / information on ingredients

### 3.1 Substances

| | |
|---|---|
| Substance name: | Ethyl acetate |
| Molecular formula: | $CH_3COOC_2H_5$ |
| Molecular weight: | 88.11 g/mol |
| CAS No.: | 141-78-6 |

| | |
|---|---|
| EU REACH registration No.: | 01-2119475103-46-XXXX |
| EC No.: | 205-500-4 |
| ATE, SCL and/or M-factor: | none |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General information

IF exposed or if you feel unwell: Call a POISON CENTRE or doctor/physician. 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. Change contaminated, saturated clothing. Do not leave affected person unattended.

#### After inhalation

Call a POISON CENTRE/doctor. Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration.

#### In case of skin contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin reactions, consult a physician.

#### After eye contact:

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

#### In case of ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Do NOT induce vomiting. Give nothing to eat or drink.

#### Self-protection of the first aider

First aider: Pay attention to self-protection!

### 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

### 5.1 Extinguishing media

**Suitable extinguishing media**

Water spray
ABC-powder
Carbon dioxide (CO2)
Nitrogen

**Extinguishing media which must not be used for safety reasons**
Full water jet

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

In case of fire may be liberated:
Carbon monoxide
Carbon dioxide (CO2)

### 5.3 Advice for firefighters

DO NOT fight fire when fire reaches explosives.
Special protective equipment for firefighters:
Wear a self-contained breathing apparatus and chemical protective clothing.

#### Additional information

Do not allow run-off from fire-fighting to enter drains or water courses.
Do not inhale explosion and combustion gases.
Use caution when applying carbon dioxide in confined spaces. Carbon dioxide can displace oxygen.
Use water spray jet to protect personnel and to cool endangered containers.
In case of fire: Evacuate area.

## SECTION 6: Accidental release measures

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

In case of major fire and large quantities: Remove persons to safety.

### 6.2 Environmental precautions

Discharge into the environment must be avoided.

### 6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Collect in closed and suitable containers for disposal. Spilled product must never be returned to the original container for recycling. Dispose of waste product or used containers according to local regulations.

### 6.4 Additional information

Clear spills immediately.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid:
Inhalation
Avoid contact with eyes and skin.
Use extractor hood (laboratory).
If handled uncovered, arrangements with local exhaust ventilation have to be used.
If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.
Keep away from sources of ignition - No smoking.
Usual measures for fire prevention.
Take precautionary measures against static discharges.

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

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

Recommended storage temperature: 15-25°C

Storage class: 3

Keep container tightly closed and in a well-ventilated place. Keep/Store away from combustible materials.

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

| Ingredient (Designation) | Regulatory information | Country | Limit value type (country of origin) | Limit value | Remark |
|---|---|---|---|---|---|
| Ethyl acetate | DNEL | EU | Worker, Dermal, long-term, systemic | 63 mg/kg bw/day | |
| Ethyl acetate | DNEL | EU | Worker, Inhalation, long-term, local | 734 mg/m³ | |
| Ethyl acetate | DNEL | EU | Worker, Inhalation, long-term, systemic | 734 mg/m³ | |
| Ethyl acetate | DNEL | EU | Worker, Inhalation, short-term, systemic | 1468 mg/m³ | |
| Ethyl acetate | PNEC | EU | aquatic, freshwater | 0,24 mg/l | |
| Ethyl acetate | PNEC | EU | aquatic, marine water | 0.024 mg/l | |
| Ethyl acetate | PNEC | EU | sediment, freshwater | 1.15 mg/kg | sediment dw |
| Ethyl acetate | PNEC | EU | sediment, marine water | 0.115 mg/kg | sediment dw |
| Ethyl acetate | PNEC | EU | Sewage treatment plant | 650 mg/l | |
| Ethyl acetate | PNEC | EU | soil | 0.148 mg/kg | soil dw |
| Ethyl acetate | Directive 98/24/EC | EU | STV | 1468 mg/m³ - 400 ppm | |
| Ethyl acetate | Directive 98/24/EC | EU | LTV | 734 mg/m³ - 200 ppm | |
| Ethyl acetate | EH40/2005 - Fourth Edition 2020 | UK | LTV | 734 mg/m³ - 200 ppm | |
| Ethyl acetate | EH40/2005 - Fourth Edition 2020 | UK | STV | 1468 mg/m³ - 400 ppm | |

### 8.2 Exposure controls

#### 8.2.1 Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment. If handled uncovered, arrangements with local exhaust ventilation have to be used.

**8.2.2 Personal protection equipment**

Wear suitable protective clothing. When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn.

*Eye/face protection*

Eye glasses with side protection DIN-/EN-Norms DIN EN 166
Recommendation: VWR 111-0432

*Skin protection*

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. Recommended glove articles DIN-/EN-Norms EN ISO 374 In the case of wanting to use the gloves again, clean them before taking off and air them well.

By short-term hand contact

| | |
|---|---|
| Suitable material: | NBR (Nitrile rubber) |
| Thickness of the glove material: | 0,38 mm |
| Breakthrough time:: | - |
| Recommended glove articles: | VWR 112-1381 |

By long-term hand contact

| | |
|---|---|
| Suitable material: | PE (polyethylene) |
| Thickness of the glove material: | - |
| Breakthrough time:: | > 480 min |
| Recommended glove articles: | VWR 112-1009 |

*Respiratory protection*

Respiratory protection necessary at: aerosol or mist formation

| | |
|---|---|
| Suitable respiratory protection apparatus: | Full-/half-/quarter-face masks (DIN EN 136/140) |
| Recommendation: | VWR 111-0206 |
| Suitable material: | ABEK2P3 |
| Recommendation: | VWR 111-0059 |

*Additional information*

Wash hands before breaks and after work. Avoid contact with eyes and skin. When using do not eat, drink or smoke. Provide eye shower and label its location conspicuously.

**8.2.3** *Environmental exposure controls*

no data available

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

| | |
|---|---|
| (a) Appearance | |
| Physical state: | liquid |
| Colour: | colourless |
| (b) Odour: | characteristic |
| (c) Odour threshold: | no data available |

### Safety relevant basic data

| | |
|---|---|
| (d) pH: | no data available |
| (e) Melting point/freezing point: | -83 °C |
| (f) Initial boiling point and boiling range: | 77.1 °C (1013 hPa) |
| (g) Flash point: | -4 °C |
| (h) Evaporation rate: | no data available |
| (i) Flammability (solid, gas): | Highly flammable liquid and vapour. |
| (j) Flammability or explosive limits | |
| Lower explosion limit: | 2.1 % (v/v) |
| Upper explosion limit: | 11.5 % (v/v) |
| (k) Vapour pressure: | 93 hPa (20 °C) |
| (l) Vapour density: | 3.04 (20 °C) |
| (m) Density: | 0.902 g/cm³ (20 °C) |
| (n) Solubility(ies) | |
| Water solubility: | 85.3 g/l (20 °C) |
| (o) Partition coefficient: n-octanol/water: | 0.73 (20 °C) |
| (p) Auto-ignition temperature: | 460 °C (DIN 51794) |
| (q) Decomposition temperature: | not applicable |
| (r) Viscosity | |
| Kinematic viscosity: | no data available |
| Dynamic viscosity: | 0.44 mPa*s (20 °C) |
| (s) Explosive properties: | not applicable |
| (t) Oxidising properties: | not applicable |
| (u) Particle characteristics: | does not apply to liquids |

### 9.2 Other information

| | |
|---|---|
| Bulk density: | no data available |
| Refraction index: | 1.3719 (589 nm; 20 °C) |
| Dissociation constant: | no data available |
| Surface tension: | no data available |
| Henry's Law Constant: | no data available |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature).

### 10.3 Possibility of hazardous reactions

No known hazardous reactions.

### 10.4 Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 10.5 Incompatible materials

Strong oxidizing agents.
Alkali metals

### 10.6 Hazardous decomposition products

No known hazardous decomposition products.

### 10.7 Additional information

no data available

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute effects**
*Acute oral toxicity*:
LD50: > 5620 mg/kg - Rat - (RTECS)

LD50: > 2000 mg/kg - Rabbit - (OECD 401)

*Acute dermal toxicity*:
LD50: < 18000 mg/kg - Rabbit - (Merck KGaA)

*Acute inhalation toxicity*:
LC50: 1500 ppm - Mouse - (New Zealand Chemical Classification and Information Database)

**Irritant and corrosive effects**
*Primary irritation to the skin:*
not applicable

*Irritation to eyes:*
Causes serious eye irritation.

*Irritation to respiratory tract:*
not applicable

**Respiratory or skin sensitisation**
In case of skin contact: not sensitising
After inhalation: not sensitising

**STOT-single exposure**
May cause drowsiness or dizziness.

**STOT-repeated exposure**
not applicable

**CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
**Carcinogenicity**
No indication of human carcinogenicity.

**Germ cell mutagenicity**
No indications of human germ cell mutagenicity exist.

**Reproductive toxicity**
No indications of human reproductive toxicity exist.

**Aspiration hazard**
not applicable

**Other adverse effects**
no data available

**Additional information**
no data available

## SECTION 12: Ecological information

### 12.1 Ecotoxicity

**Fish toxicity:**
LC50: 328 mg/l (96 h) - Brooke, L.T., D.J. Call, D.L. Geiger, and C.E. Northcott 1984. Acute Toxicities of Organic Chemicals to Fathead Minnows (Pimephales promelas), Vol. 1. Center for Lake Superior Environmental Stud., Univ.of Wisconsin-Superior, Superior, WI :414

**Daphnia toxicity**:
LC50: 679 mg/l (48 h) - Canton, J.H., and D.M.M. Adema 1978. Reproducibility of Short-Term and Reproduction Toxicity Experiments with Daphnia magna. Hydrobiologia 59(2):135-140 (Used Reference 2018)

EC50: 100 mg/l (48 h) Daphnia magna - IUCLID

**Algae toxicity:**
EC50: 2500 mg/l (96 h) - Slooff, W. 1982. A Comparative Study on the Short-Term Effects of 15 Chemicals on Fresh Water Organisms of Different Tropic Levels. Natl.Tech.Inf.Serv., Springfield, VA :25 p. (DUT) (ENG ABS) (NTIS/PB83-200386)

**Bacteria toxicity:**
EC10: 650 mg/l (16 h) Pseudomonas putida - DIN 38412

### 12.2 Persistence and degradability

Biodegradable.

### 12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water: 0.73 (20 °C)

### 12.4 Mobility in soil:

no data available

### 12.5 Results of PBT/vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, Annex XIII.

### 12.6 Other adverse effects

no data available

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

**Appropriate disposal / Product**

Dispose according to local legislation. Consult the appropriate local waste disposal expert about waste disposal.

Waste code product: 070104

**Appropriate disposal / Package**

Dispose according to local legislation. Handle contaminated packages in the same way as the substance itself.

**Additional information**

no data available

## SECTION 14: Transport information

### Land transport (ADR/RID)

| | | |
|---|---|---|
| 14.1 | UN-No.: | 1173 |
| 14.2 | Proper Shipping Name: | ETHYL ACETATE |
| 14.3 | Class(es): | 3 |
| | Classification code: | F1 |
| | Hazard label(s): | 3 |
| 14.4 | Packing group: | II |
| 14.5 | Environmental hazards: | No |
| 14.6 | Special precautions for user: | |
| | Hazard identification number (Kemler No.): | 33 |
| | tunnel restriction code: | D/E<br>(Passage forbidden through tunnels of category D when carried in bulk or in tanks. Passage forbidden through tunnels of category E.) |

## Sea transport (IMDG)

| | | |
|---|---|---|
| 14.1 | UN-No.: | 1173 |
| 14.2 | Proper Shipping Name: | ETHYL ACETATE |
| 14.3 | Class(es): | 3 |
| | Classification code: | |
| | Hazard label(s): | 3 |
| 14.4 | Packing group: | II |
| 14.5 | Environmental hazards: | No |
| | Marine pollutant: | No |
| 14.6 | Special precautions for user: | |
| | Segregation group: | - |
| | EmS-No. | F-E S-D |
| 14.7 | Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | |
| | not relevant | |

## Air transport (ICAO-TI / IATA-DGR)

| | | |
|---|---|---|
| 14.1 | UN-No.: | 1173 |
| 14.2 | Proper Shipping Name: | ETHYL ACETATE |
| 14.3 | Class(es): | 3 |
| | Classification code: | |
| | Hazard label(s): | 3 |
| 14.4 | Packing group: | II |
| 14.5 | Special precautions for user: | |

## SECTION 15: Regulatory information

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

**EU legislation**

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC (Text with EEA relevance)
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 (Text with EEA relevance)
- Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Text with EEA relevance)
- Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

**National regulations**

-

| | |
|---|---|
| Water hazard class: | slightly hazardous to water |

### 15.2 Chemical Safety Assessment

For this substance a chemical safety assessment has not been carried out.

## SECTION 16: Other information

**Abbreviations and acronyms**

ACGIH - American Conference of Governmental Industrial Hygiensts
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
AGS - Committee on Hazardous Substances (Ausschuss für Gefahrstoffe)
CLP - Regulation on Classification, Labelling and Packaging of Substances and Mixtures
DFG - German Research Foundation (Deutsche Forschungsgemeinschaft)
DNEL - Derived No Effect Level
Gestis - Information system on hazardous substances of the German Social Accident Insurance (Gefahrstoffinformationssystem der Deutschen Gesetzlichen Unfallversicherung)
IATA-DGR - International Air Transport Association-Dangerous Goods Regulations
ICAO-TI - International Civil Aviation Organization-Technical Instructions
IMDG - International Maritime Code for Dangerous Goods
KOSHA - Korea Occupational Safety and Health Agency
LTV - Long Term Value
NIOSH - National Institute for Occupational Safety and Health
OSHA - Occupational Safety & Health Administration
PBT - Persistent, Bioaccumulative and Toxic
PNEC - Predicted No Effect Concentration
RID - Regulation concerning the International Carriage of Dangerous Goods by Rail
STV - Short Term Value
SVHC - Substances of Very High Concern
vPvB - very Persistent, very Bioaccumulative

Training advice: Provide adequate information, instruction and training for operators.

**Key literature references and sources for data**

This Safety Data Sheet has been prepared based on information available for public as TOXNET information, European Chemicals Agency (ECHA) substance dossier, papers from international cancer research institutes (IARC Monographs), U.S. National Toxicology Program data, U.S. Agency for Toxic Substances and Disease Control (ATSDR), PubChem websites and SDS from our raw material manufacturers.

**Additional information**

| | |
|---|---|
| Indication of changes | Section 8: Update of DNEL and/or PNEC data<br><br>If you need an explanation of the change, contact the supplier (SDS@avantorsciences.com). |

*The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.*