

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1 Product identifier****Trade name:** Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS**Article number:** ET0013**Registration number**

A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

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:**

Toxicological Information National Institute of Toxicology and Forensic Sciences: + 34 91 562 04 20. The information will be provided (24h/365 days)

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**

GHS02 flame

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



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

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

The product is classified and labelled according to the CLP regulation.

(Contd. on page 2)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 1)

· Hazard pictograms

GHS02 GHS07

· Signal word Danger**· Hazard statements**

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P241 Use explosion-proof [electrical/ventilating/lighting] equipment.

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

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.

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

· 2.3 Other hazards**· Results of PBT and vPvB assessment****· PBT:** Not applicable.**· vPvB:** Not applicable.**SECTION 3: Composition/information on ingredients****· 3.2 Chemical characterisation: Mixtures****· Description:** Mixture of substances listed below with nonhazardous additions.**· Dangerous components:**

CAS: 64-17-5

ethanol

50-100%

EINECS: 200-578-6

⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319

Reg.nr.: 01-2119457610-43-XXXX

· Additional information: For the wording of the listed hazard phrases refer to section 16.**SECTION 4: First aid measures****· 4.1 Description of first aid measures****· After inhalation:** Supply fresh air; consult doctor in case of complaints.**· After skin contact:** Generally the product does not irritate the skin.**· After eye contact:** Rinse opened eye for several minutes under running water.**· After swallowing:** If symptoms persist consult doctor.**· 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

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

No further relevant information available.

(Contd. on page 3)

Safety data sheet according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

(Contd. of page 2)

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:**
Dilute with plenty of water.
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.
- **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** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:**
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 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.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Additional information about design of technical facilities:** No further data; see item 7.
- **Ingredients with limit values that require monitoring at the workplace:**

64-17-5 ethanol
WEL Long-term value: 1920 mg/m³, 1000 ppm
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:** Wash hands before breaks and at the end of work.
- **Respiratory protection:** Not required.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 3)

Protection of hands:

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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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.

Eye protection:


Tightly sealed goggles

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
General Information
Appearance:
Form:

Fluid

Colour:

Colourless

Odour:

Like alcohol

Odour threshold:

Not determined.

pH-value:

Not determined.

Change in condition
Melting point/freezing point:

-114 °C

Initial boiling point and boiling range: 78 °C

Flash point:

9 °C

Flammability (solid, gas):

Not applicable.

Ignition temperature:

423 °C

Decomposition temperature:

Not determined.

Auto-ignition temperature:

Product is not selfigniting.

Explosive properties:

Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:
Lower:

3.5 Vol %

Upper:

15 Vol %

Vapour pressure at 20 °C:

60.928 hPa

Density at 20 °C:
0.81 g/cm³
Relative density

Not determined.

Vapour density

Not determined.

Evaporation rate

Not determined.

(Contd. on page 5)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

(Contd. of page 4)

- **Solubility in / Miscibility with water at 20 °C:** 1,000 g/l
- **Partition coefficient: n-octanol/water:** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 96.0 %
 - Water:** 4.0 %
- **9.2 Other information** No further relevant information available.

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.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** 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.

SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 5)

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

SECTION 14: Transport information

- **14.1 UN-Number**
ADR, IMDG, IATA UN1170
- **14.2 UN proper shipping name**
ADR 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
ETHANOL SOLUTION
- **IMDG**
- **IATA**
- **14.3 Transport hazard class(es)**
- **ADR, IMDG, IATA**



- **Class** 3 Flammable liquids.
- **Label** 3
- **14.4 Packing group** II
- **ADR, IMDG, IATA**
- **14.5 Environmental hazards:**
- **Marine pollutant:** No
- **14.6 Special precautions for user** Warning: Flammable liquids.
- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** A
- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **ADR**
- **Limited quantities (LQ)** 1L
- **Transport category** 2
- **Tunnel restriction code** D/E

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS**UN "Model Regulation":**(Contd. of page 6)
UN 1170 ETHANOL SOLUTION (ETHYL
ALCOHOL SOLUTION), 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** None of the ingredients is listed.
- **Seveso category** P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5000 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 50000 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**
None of the ingredients is listed.
- **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.

- **Relevant phrases**
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
- **Classification according to Regulation (EC) No 1272/2008**
The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
- **Department issuing SDS:** product safety department
- **Contact:** msds@scharlab.com
- **Abbreviations and acronyms:**
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
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Liq. 2: Flammable liquids – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 7)

Annex: Exposure scenario 1

1 - Short title of the exposure scenario

Exposure scenario: Ethanol absolute

Industrial use

Sector of Use

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

Process category

PROC1 Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions.

PROC2 Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

PROC3 Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition

PROC4 Chemical production where opportunity for exposure arises

PROC5 Mixing or blending in batch processes

PROC7 Industrial spraying

PROC8a Transfer of substance or mixture (charging and discharging) at non-dedicated facilities

PROC8b Transfer of substance or mixture (charging and discharging) at dedicated facilities

PROC10 Roller application or brushing

PROC13 Treatment of articles by dipping and pouring

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

Process assistant

Cleaning agent

Solvent or component of a coating

Application methods included:

- Application with brush or roller.

- Bath treatment

- Spray

- Immersion

- Soaking

- Manual or automatic spraying

2 - Conditions of use**Duration and frequency**

Continuous process

Emission days (days/year): 300

8hrs (full working shift).

Environment

Local dissolution factor in fresh water: 10

Local dissolution factor in seawater: 100

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

Estimated substance removal from wastewater via domestic sewage treatment (%): 87

Physical parameters

The substance is a unique structure

Not hydrophobic

Liquid, vapor pressure 0.5 - 10 kPa at standardized temperature and pressure

Miscible in water

Practically non-toxic to aquatic organisms

Readily biodegradable

Low bioaccumulation potential

Physical state Fluid**Concentration of the substance in the mixture**

It covers a percentage of substance in the product up to 100 %

Raw material.

(Contd. on page 9)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

(Contd. of page 8)

Used amount per time or activity

3000 tons per year

1000 kg per day

Other operational conditions**Other operational conditions affecting environmental exposure**

Source: ESVOC SpERC 4.3a.v1

Fraction released to air from process (initial release previous to MGR): 0.98

Fraction released to residual water from process (initial release previous to MGR): 0.01

Fraction released to ground from process (initial release previous to MGR): 0

Other operational conditions affecting worker exposure

Assumes use at not more than 20 °C above ambient temperature, unless stated differently.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

May be rolled or sprayed.

Ensure adequate ventilation, especially in closed rooms.

Risk management measures**Worker protection****Organisational protective measures**

Provide a good standard of controlled ventilation (10 to 15 air changes per hour)

Surround with a dyke storage facilities to prevent contamination of soil and water in case of spillage

Avoid the discharge to the environment, in line with the regulatory requirements

Keep good industrial hygiene.

Make sure that the workplace is well-lit and organised.

Do not exceed normal working hours per worker.

Technical protective measures

Use product only in enclosed systems.

Keep receptacles tightly sealed.

Provide explosion-proof electrical equipment.

Personal protective measures

Tightly sealed goggles

Avoid contact with the eyes and skin.

Do not inhale gases / fumes / aerosols.

Detailed measures on hand protection according to Safety Data Sheet, section 8.

Measures for consumer protection Ensure adequate labelling.**Environmental protection measures****Air** Treat the emissions to the atmosphere to provide a removal efficiency typical of (%): 90**Water**The product should not be released into water without pretreatment. An on-site wastewater treatment is recommended. The typical site treatment technology of wastewater achieves removal efficiency (%): (≥ 87)Size of sewage treatment plant (m³/d): 2000

In case of discharge to a domestic wastewater treatment plant, it is not necessary to treat the wastewater in situ.

Soil

No significant emissions to the terrestrial environment are expected.

No special measures required.

Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.**Disposal measures**

Estimated amount has gone to waste, no more than: 5 %

Type of treatment suitable for waste: incineration. Elimination efficiency (%): 99.98

Type of treatment suitable for waste: fuel for cement kilns. Elimination efficiency (%): 99.98

Treat as hazardous waste.

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.

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

(Contd. of page 9)

Disposal procedures

Product residues are incinerated as special waste.

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

Waste type Partially emptied and uncleaned packaging

3 - Exposure estimation
Worker (dermal)

PROC 1. 0.03 mg / kg / day. Risk characterization ratio: <0.001

PROC 2. 1.4 mg / kg / day. Risk characterization ratio: 0.004

PROC 3. 0.69 mg / kg / day. Risk characterization ratio: 0.002

PROC 4. 6.9 mg / kg / day. Risk characterization ratio: 0.02

PROC 5. 14 mg / kg / day. Risk characterization ratio: 0.04

PROC 7. 43 mg / kg / day. Risk characterization ratio: 0.125

PROC 8a. 14 mg / kg / day. Risk characterization ratio: 0.04

PROC 8b. 14 mg / kg / day. Risk characterization ratio: 0.04

PROC 10. 27 mg / kg / day. Risk characterization ratio: 0.08

PROC 13. 14 mg / kg / day. Risk characterization ratio: 0.04

PROC 15. 0.34 mg / kg / day. Risk characterization ratio: <0.001

Worker (inhalation)

PROC: 1. 8 hours average 0.019 mg / m³. Risk characterization ratio: <0.001

PROC: 2. 8 hours average 9.6 mg / m³. Risk characterization ratio: 0.01

PROC: 3. 8 hours average 19 mg / m³. Risk characterization ratio: 0.02

PROC: 4. 8 hours average 38 mg / m³. Risk characterization ratio: 0.04

PROC: 5. 8 hours average 96 mg / m³. Risk characterization ratio: 0.101

PROC: 7. 8 hours average 140 mg / m³. Risk characterization ratio: 0.151

PROC: 8a. 8 hours average 96 mg / m³. Risk characterization ratio: 0.101

PROC: 8b. 8 hours average 48 mg / m³. Risk characterization ratio: 0.05

PROC: 10. 8 hours average 96 mg / m³. Risk characterization ratio: 0.101

PROC: 13. 8 hours average 96 mg / m³. Risk characterization ratio: 0.101

PROC: 15. 8 hours average 19 mg / m³. Risk characterization ratio: 0.02

Environment

PEC for microorganisms in municipal sewage plant: 6.32E + 00 mg / l. Risk characterization ratio: 1.09E-02

Local PEC in surface waters: 5.77E-01 mg / l. Risk characterization ratio: 6.01E-01

Local PEC in freshwater sediment 2.21E + 00 mg / l. Risk characterization ratio: 6.01E-01

Local PEC in seawater during the emission episode: 6.35E-02 mg / l. Risk characterization ratio: 8.04E-02

Local PEC in marine sediments: 2.44E-01 mg / l. Risk characterization ratio: 8.05E-02

Local PEC in the soil: 5.25E-02 mg / l. Risk characterization ratio: 3.09E-01

The risk of environmental exposure is based on fresh water.

4 - Guidance for downstream users

Environment:

Msafe: 124000 kg / day

The guidelines are based on the assumed operating conditions, which may not be applicable to all sites; therefore, it may be necessary to apply scaling to define the risk management measures specific to each site.

$$(\text{mspERC} * (1 - \text{EER}, \text{spERC})) * \text{Frelease}, \text{spERC} / (\text{DFspERC}) \geq (\text{msite} * (1 - \text{EER}, \text{site}) * \text{Frelease}, \text{site}) / (\text{DFsite})$$

• MspERC: Rate of use of the substance in the SPERC

• EER, spERC: Efficiency of the MGR in the SPERC

• EER, spERC: Fraction of initial emission in the SPERC

• DFspERC: Dissolution factor in the effluent rivers of the municipal wastewater treatment plant

• Msite: Rate of use of the substance at the site.

• EER, site: Effectiveness of the MGR on the site.

• Frelease, site: Fraction of initial emission at the site.

(Contd. on page 11)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 10)

· DF_{site}: Dissolution factor in the effluent rivers of the municipal wastewater treatment plant.

If the escalation reveals the possibility of unsafe use (eg, CCR > 1), additional MGR or site-specific chemical safety assessment will be required. More information on scaling and control technologies in the SPERC data sheet (<http://cefic.org/en/reach-for-industries-libraries.html>)

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.

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

Health:

Inhalation (vapor). No correction is required since an 8-hour exposure is assumed in all cases (evaluation in the worst case). No correction is required as it is assumed that all exposures correspond to substance concentrations of up to 100%.

Cutaneous: No correction is required as it is assumed that all exposures correspond to substance concentrations of up to 100%. No correction is required since an 8-hour exposure is assumed in all cases (evaluation in the worst case).

(Contd. on page 12)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 11)

Annex: Exposure scenario 2

1 - Short title of the exposure scenario

Exposure scenario: Ethanol absolute

Laboratory use

Sector of Use

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

Process category

PROC10 Roller application or brushing

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

Use of small quantities in laboratory environments, including material transfers and equipment cleaning.

2 - Conditions of use**Duration and frequency**

Continuous process

Emission days (days/year): 365

8hrs (full working shift).

Physical parameters

The substance is a unique structure

Not hydrophobic

Liquid, vapor pressure 0.5 - 10 kPa at standardized temperature and pressure

Miscible in water

Practically non-toxic to aquatic organisms

Readily biodegradable

Low bioaccumulation potential

Physical state Fluid**Concentration of the substance in the mixture**

It covers a percentage of substance in the product up to 100 %

Raw material.

Used amount per time or activity

0.01 tons per year

0.0274 kg per day

Other operational conditions**Other operational conditions affecting environmental exposure**

Source: ESVOC SpERC 8.17.v1

Fraction released to air from process (initial release previous to MGR): 0.5

Fraction released to residual water from process (initial release previous to MGR): 0.5

Fraction released to ground from process (initial release previous to MGR): 0

Other operational conditions affecting worker exposure

Assumes use at not more than 20 °C above ambient temperature, unless stated differently.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

May be rolled or sprayed.

Ensure adequate ventilation, especially in closed rooms.

Risk management measures**Worker protection****Organisational protective measures**

Avoid the discharge to the environment, in line with the regulatory requirements

Keep good industrial hygiene.

Make sure that the workplace is well-lit and organised.

Do not exceed normal working hours per worker.

(Contd. on page 13)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvent® HPLC grade ACS UV-VIS

(Contd. of page 12)

• Technical protective measures

Use product only in enclosed systems.
Keep receptacles tightly sealed.
Provide explosion-proof electrical equipment.

• Personal protective measures

Tightly sealed goggles
Avoid contact with the eyes and skin.
Do not inhale gases / fumes / aerosols.
Detailed measures on hand protection according to Safety Data Sheet, section 8.

• Measures for consumer protection Ensure adequate labelling.**• Environmental protection measures****• Air**

No special measures required.
Treat the emissions to the atmosphere to provide a removal efficiency typical of (%): 0

• Water

Do not release waste water directly into the environment. In situ treatment of wastewater is not taken for granted.

• Soil

No significant emissions to the terrestrial environment are expected.
No special measures required.

• Notes In case of unintended release of the product: See section 6 of the Safety Data Sheet.**• Disposal measures**

Type of treatment suitable for waste: incineration. Elimination efficiency (%): 99.98
Treat as hazardous waste.

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.

• Disposal procedures

Product residues are incinerated as special waste.

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

• Waste type Partially emptied and uncleaned packaging**• 3 - Exposure estimation****• Worker (dermal)**

PROC 10. 27 mg / kg / day. Risk characterization ratio: 0.08

PROC 15. 0.34 mg / kg / day. Risk characterization ratio: <0.001

• Worker (inhalation)

PROC: 10. 8 hours average 96 mg / m3. Risk characterization ratio: 0.101

PROC: 15. 8 hours average 19 mg / m3. Risk characterization ratio: 0.02

• Environment

PEC for microorganisms in municipal sewage plant: 6.32E + 00 mg / l. Risk characterization ratio: 1.09E-02

Local PEC in surface waters: 5.77E-01 mg / l. Risk characterization ratio: 6.01E-01

Local PEC in freshwater sediment 2.21E + 00 mg / l. Risk characterization ratio: 6.01E-01

Local PEC in seawater during the emission episode: 6.35E-02 mg / l. Risk characterization ratio: 8.04E-02

Local PEC in marine sediments: 2.44E-01 mg / l. Risk characterization ratio: 8.05E-02

Local PEC in the soil: 5.25E-02 mg / l. Risk characterization ratio: 3.09E-01

The risk of environmental exposure is based on the soil.

• 4 - Guidance for downstream users

Environment:

Msafe: 124000 kg / day

Not applicable for wide dispersive applications.

More information on scaling and control technologies in the SPERC data sheet (<http://cefic.org/en/reach-for-industries-libraries.html>)

(Contd. on page 14)

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07.06.2021

Version number 2.0

Revision: 02.06.2021

Trade name: Ethanol 96% v/v, Multisolvant® HPLC grade ACS UV-VIS

(Contd. of page 13)

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.

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

Health:

Inhalation (vapor). No correction is required since an 8-hour exposure is assumed in all cases (evaluation in the worst case). No correction is required as it is assumed that all exposures correspond to substance concentrations of up to 100%.

Cutaneous: No correction is required as it is assumed that all exposures correspond to substance concentrations of up to 100%. No correction is required since an 8-hour exposure is assumed in all cases (evaluation in the worst case).