

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

Printing date 07.06.2021

Version number 5.0

Revision: 02.06.2021

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier****Trade name:** Acetic anhydride, for analysis, ExpertQ®, ACS, ISO, Reag. Ph Eur**Article number:** AN0155**CAS Number:**

108-24-7

**EC number:**

203-564-8

**Index number:**

607-008-00-9

**Registration number** 01-2119486470-36-XXXX**1.2 Relevant identified uses of the substance or mixture and uses advised against****Sector of Use** SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)**Process category**

PROC5 Mixing or blending in batch processes

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

PROC9 Transfer of substance or mixture into small containers (dedicated filling line, including weighing)

PROC15 Use as laboratory reagent

**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.

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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**

GHS02 flame

Flam. Liq. 3 H226 Flammable liquid and vapour.



GHS06 skull and crossbones

Acute Tox. 1 H330 Fatal if inhaled.

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GHS05 corrosion

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



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

STOT SE 3 H335 May cause respiratory irritation.

#### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008

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

#### Hazard pictograms



GHS02 GHS05 GHS06

#### Signal word Danger

#### Hazard statements

H226 Flammable liquid and vapour.

H302 Harmful if swallowed.

H330 Fatal if inhaled.

H314 Causes severe skin burns and eye damage.

H335 May cause respiratory irritation.

#### Precautionary statements

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.

P320 Specific treatment is urgent (see on this label).

P405 Store locked up.

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

#### 3.1 Chemical characterisation: Substances

##### CAS No. Description

108-24-7 acetic anhydride

##### Identification number(s)

EC number: 203-564-8

Index number: 607-008-00-9

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### SECTION 4: First aid measures

#### • 4.1 Description of first aid measures

##### • **General information:**

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

##### • **After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

In case of unconsciousness place patient stably in side position for transportation.

##### • **After skin contact:** Immediately wash with water and soap and rinse thoroughly.

##### • **After eye contact:**

Rinse opened eye for several minutes under running water. Then consult a doctor.

##### • **After swallowing:**

Call for a doctor immediately.

Drink plenty of water and provide fresh air. Call for a doctor immediately.

#### • 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.

### SECTION 5: Firefighting measures

#### • 5.1 Extinguishing media

##### • **Suitable extinguishing agents:**

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

##### • **For safety reasons unsuitable extinguishing agents:** Water with full jet

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

No further relevant information available.

#### • 5.3 Advice for firefighters

##### • **Protective equipment:** Mouth respiratory protective device.

### 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:

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).

Use neutralising agent.

Dispose contaminated material as waste according to item 13.

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

Ensure good ventilation/exhaustion at the workplace.

#### • **Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

**7.2 Conditions for safe storage, including any incompatibilities****Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **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:****108-24-7 acetic anhydride**WEL Short-term value: 10 mg/m<sup>3</sup>, 2 ppmLong-term value: 2.5 mg/m<sup>3</sup>, 0.5 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:**

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 and skin.

**Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**Protection of hands:**

Protective gloves

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.

**Eye protection:**

Tightly sealed goggles

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**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties****General Information****Appearance:****Form:**

Fluid

**Colour:**

Colourless

**Odour:**

Pungent

**Odour threshold:**

Not determined.

**pH-value:**

Not determined.

**Change in condition****Melting point/freezing point:**

-73.1 °C

**Initial boiling point and boiling range:**

139.55 °C

**Flash point:**

49 °C

**Flammability (solid, gas):**

Not applicable.

**Ignition temperature:**

330 °C

**Decomposition temperature:**

Not determined.

**Auto-ignition temperature:**

Not determined.

**Explosive properties:**

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

**Explosion limits:****Lower:**

2 Vol %

**Upper:**

10.2 Vol %

**Vapour pressure at 20 °C:**

4.9 hPa

**Density at 20 °C:**1.082 g/cm<sup>3</sup>**Relative density**

Not determined.

**Vapour density**

Not determined.

**Evaporation rate**

Not determined.

**Solubility in / Miscibility with water at 20 °C:**

136 g/l

**Partition coefficient: n-octanol/water:**

Not determined.

**Viscosity:****Dynamic:**

Not determined.

**Kinematic:**

Not determined.

**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.

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- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity**  
Harmful if swallowed.  
Fatal if inhaled.
- **LD/LC50 values relevant for classification:**

|            |          |                     |
|------------|----------|---------------------|
| Oral       | LD50     | 1780 mg/kg (rat)    |
| Dermal     | LD50     | 4000 mg/kg (rabbit) |
| Inhalative | LC50/4 h | 1000 mg/l (rat)     |
- **Primary irritant effect:**
- **Skin corrosion/irritation**  
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**  
Causes severe skin burns and eye damage.
- **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**  
May cause respiratory irritation.
- **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) (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.  
Must not reach sewage water or drainage ditch undiluted or unneutralised.
- **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.

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- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

### SECTION 14: Transport information

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• <b>14.1 UN-Number</b></li> <li>• <b>ADR, IMDG, IATA</b></li> <li>• <b>14.2 UN proper shipping name</b></li> <li>• <b>ADR</b></li> <li>• <b>IMDG, IATA</b></li> <li>• <b>14.3 Transport hazard class(es)</b></li> <li>• <b>ADR</b></li> </ul>   | <div style="text-align: right;">UN1715</div> <div style="text-align: right;">1715 ACETIC ANHYDRIDE<br/>ACETIC ANHYDRIDE</div>   |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> <li>• <b>Class</b></li> <li>• <b>Label</b></li> </ul>  | <div style="text-align: right;">8 Corrosive substances.<br/>8+3</div>   |
|   |   |
| <ul style="list-style-type: none"> <li>• <b>IMDG</b></li> </ul>   | <div style="text-align: right;">8 Corrosive substances.<br/>8/3</div>   |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> <li>• <b>Class</b></li> <li>• <b>Label</b></li> </ul>  | <div style="text-align: right;">8 Corrosive substances.<br/>8/3</div>   |
|   |   |
| <ul style="list-style-type: none"> <li>• <b>IATA</b></li> </ul>   | <div style="text-align: right;">8 Corrosive substances.<br/>8 (3)</div>   |
| <div style="display: flex; justify-content: space-around; align-items: center;">   </div> <ul style="list-style-type: none"> <li>• <b>Class</b></li> <li>• <b>Label</b></li> <li>• <b>14.4 Packing group</b></li> <li>• <b>ADR, IMDG, IATA</b></li> <li>• <b>14.5 Environmental hazards:</b></li> <li>• <b>Marine pollutant:</b></li> <li>• <b>14.6 Special precautions for user</b></li> <li>• <b>Hazard identification number (Kemler code):</b></li> <li>• <b>EMS Number:</b></li> <li>• <b>Segregation groups</b></li> <li>• <b>Stowage Category</b></li> <li>• <b>Stowage Code</b></li> <li>• <b>Segregation Code</b></li> </ul> | <div style="text-align: right;">             II<br/><br/>             No<br/>             Warning: Corrosive substances.<br/>             83<br/>             8-04<br/>             Acids<br/>             A<br/>             SW2 Clear of living quarters.<br/>             SG36 Stow "separated from" SGG18-alkalis.<br/>             SG49 Stow "separated from" SGG6-cyanides           </div> |
| <ul style="list-style-type: none"> <li>• <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b></li> </ul>  | <div style="text-align: right;">Not applicable.</div>   |
|   |   |
| <ul style="list-style-type: none"> <li>• <b>Transport/Additional information:</b></li> </ul>  |   |
| <ul style="list-style-type: none"> <li>• <b>ADR</b></li> <li>• <b>Limited quantities (LQ)</b></li> <li>• <b>Transport category</b></li> <li>• <b>Tunnel restriction code</b></li> </ul>   | <div style="text-align: right;">             1L<br/>             2<br/>             D/E           </div>  |

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UN 1715 ACETIC ANHYDRIDE, 8 (3), II (Contd. of page 7)

### 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**  
H1 ACUTE TOXIC  
P5c FLAMMABLE LIQUIDS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 5 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 20 t
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3, 40
- **DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**  
Substance is not listed.
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not 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.

- **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:**  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 3: Flammable liquids – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Acute Tox. 1: Acute toxicity – Category 1  
Skin Corr. 1B: Skin corrosion/irritation – Category 1B  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3