

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

- **1.1 Product identifier**
- **Trade name: ASO-R005**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.
- **Application of the substance / the mixture** Cleaning agent/ Cleaner
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
SCHOMBURG GmbH & Co. KG
Aquafinstr. 2-8
D-32760 Detmold
Germany
- Tel: ++49 (0)5231/953-00
Fax: ++49 (0)5231/953-123
email: info@schomburg.de
web: www.schomburg.de
- **Informing department:**
Product Safety Department
- Tel: ++49 (0)5231/953-193
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email: SDB@schomburg.de

SECTION 2: Hazards identification

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



GHS05 corrosion

Met. Corr. 1 H290 May be corrosive to metals.

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H332 Harmful if inhaled.

- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** GHS05, GHS07
- **Signal word** Danger
- **Hazard-determining components of labelling:**
formic acid
- **Hazard statements**
H290 May be corrosive to metals.
H302+H332 Harmful if swallowed or if inhaled.

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H314 Causes severe skin burns and eye damage.

· **Precautionary statements**

P260 Do not breathe dusts or mists.

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.

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**· **3.2 Chemical characterisation: Mixtures**· **Description:** Aqueous solution of an organic acid.· **Dangerous components:**

CAS: 64-18-6 formic acid 25-50%

EINECS: 200-579-1  Flam. Liq. 3, H226;  Acute Tox. 3, H331;  Met. Corr. 1, H290; Skin Corr. 1A, H314; Eye Dam. 1, H318;  Acute Tox. 4, H302· **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**· **General information**

Personal protection for the First Aider.

Instantly 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.

Personal protection for the First Aider.

It is possible to choke in case of vomiting in unconsciousness.

Bring unconscious persons into a stable position on side.

Keep the respiratory tract free (remove dentures and vomiting).

Check the pulse. In case of heart failure you have to make a cardiac massage. In case of stoppage of breathing: artificial respiration.

Take up a doctor immediately!

· **After inhalation** Supply fresh air or oxygen; call for doctor.· **After skin contact** Wash with water and soap.· **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.· **After swallowing**

Drink copious amounts of water and provide fresh air. Instantly call for doctor.

Show the pack or the label to the doctor.

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

No further relevant information available.

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- **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**
Product is not inflammable.
CO₂, extinguishing powder or water jet. Fight larger fires with water jet.
- **5.2 Special hazards arising from the substance or mixture**
Formation of poisonous gases during heating or in fires.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear PVC-boots, protective gloves and clothing.
- **Additional information**
Collect contaminated fire fighting water separately. It must not enter drains.
Follow the emergency-plan.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Bring persons out of danger.
Wear protective equipment. Keep unprotected persons away.
- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.
- **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.
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 information on disposal.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
Keep away from children.
- **Information about protection against explosions and fires:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and containers:** No special requirements.
- **Information about storage in one common storage facility:**
Please follow the rules of the VCI-Storage-Concept for chemicals.
- **Further information about storage conditions:**
Protect from frost.
Keep container tightly sealed.
Store in a locked cabinet and out of the reach of children.
- **7.3 Specific end use(s)** No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical systems:**

It must be possible to wash the skin in the working area.
Eye-wash bottle must be available.

· **8.1 Control parameters**

· **Components with critical values that require monitoring at the workplace:**

64-18-6 formic acid (25-50%)

WEL Long-term value: 9.6 mg/m³, 5 ppm

· **Additional information:** The lists that were valid during the compilation were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment**

· **General protective and hygienic measures**

Wash hands during breaks and at the end of the work.
The usual precautionary measures should be adhered to in handling the chemicals.
Instantly remove any soiled and impregnated garments.
Avoid contact with the eyes and skin.
Be sure to clean skin thoroughly after work and before breaks.

· **Breathing equipment:** Use breathing protection in case of insufficient ventilation.

· **Protection of hands:** Hand Protection: Nitril-rubber-latex-gloves.

· **Material of gloves**

Nitrile coated protective gloves (category III, material strength: 0,425 mm break through time > 480 Min (eg. Ansell Chemical Protective gloves Sol-Vex® 37-900)

· **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:** Safety glasses

· **Body protection:** Protective work clothing.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Fluid
Colour:	Colourless
Smell:	Odourless
Odour threshold:	Not determined.

· **pH-value at 20 °C:** 2.2

· **Change in condition**

Melting point/freezing point:	-13 °C
Initial boiling point and boiling range:	>100 °C

· **Flash point:** 62 °C

· **Inflammability (solid, gaseous)** Not applicable.

· **Decomposition temperature:** Not determined.

· **Self-inflammability:** Product is not selfigniting.

· **Explosive properties:** Product is not explosive.

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· Critical values for explosion:	
Lower:	14.9 Vol %
Upper:	47.6 Vol %
· Steam pressure at 20 °C:	21 hPa
· Density at 20 °C	1.2 g/cm ³
· Relative density	1.6
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	miscible
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
dynamic at 20 °C:	1.6 mPas
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.
- **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 or if inhaled.
- **LD/LC50 values that are relevant for classification:**
- 64-18-6 formic acid**
- Oral LD50 730 mg/kg (rats) (OECD 401)
- Inhalative LC50/4 h 7.85 mg/l (rats) (OECD 403)
- **Primary irritant effect:**
- **Skin corrosion/irritation**
Causes severe skin burns and eye damage.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.

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- **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:**

64-18-6 formic acid

LC50/96h 1,720 mg/l (fish toxicity)

EC/LC50 (48h) 365 mg/l (Daphnia magna) (OECD 202)

EC/LC50 (17h) 46.7 mg/l (bacterial toxicity)

ERC50 1,240 mg/l /72h (Pseudokirchneriella subcapitata)

LOEC ≥100 mg/l /21d (Daphnia magna) (OECD 211)

NOEC ≥100 mg/l /21d (Daphnia magna) (OECD 211)
- **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 (Self-assessment): slightly hazardous for water.

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

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
- **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 of together with household garbage. Do not allow product to reach sewage system.
- **European waste catalogue**

07 00 00 WASTES FROM ORGANIC CHEMICAL PROCESSES

07 01 00 wastes from the manufacture, formulation, supply and use (MFSU) of basic organic chemicals

07 01 99 wastes not otherwise specified
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN3412
· 14.2 UN proper shipping name · ADR · IMDG, IATA	3412 FORMIC ACID FORMIC ACID
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA	
· Class · Label	8 Corrosive substances. 8
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user · Kemler Number: · EMS Number: · Segregation groups · Stowage Category · Stowage Code	Warning: Corrosive substances. 80 F-A,S-B Acids A SW2 Clear of living quarters.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category · Tunnel restriction code	2 E
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 3412 FORMIC ACID, 8, II

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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.
- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3
- **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H226 Flammable liquid and vapour.
H290 May be corrosive to metals.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H318 Causes serious eye damage.
H331 Toxic if inhaled.
- **Department issuing data specification sheet:** Environment protection department.
- **Contact:** Mr. Guido Herfort
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport 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)
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
Met. Corr. 1: Corrosive to metals – Category 1
Acute Tox. 4: Acute toxicity - oral – Category 4
Acute Tox. 3: Acute toxicity - inhalation – Category 3
Skin Corr. 1A: Skin corrosion/irritation – Category 1A
Skin Corr. 1B: Skin corrosion/irritation – Category 1B
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- *** Data compared to the previous version altered.**