# ROBO ACID

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

### 1.1 - Product identifier

Trade name/designation

| | |
|---|---|
| Chemical name | ROBO ACID |
| Product-type | Mixture |
| Product code | R101 EV - Agricultural Hygiene |
| UFI: | 5NM3-7G5C-E605-W69R |

SDS also conforms with UK Regulation: "SI 2020 No. 1577 - The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020".

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

| | |
|---|---|
| Relevant identified uses | - Acid Cleaner for the Descaling of Robotic Milking Equipment. |

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

UK Supplier: Evans Vanodine International plc,
Brierley Road, Walton Summit, Preston, UK. PR5 8AH

Telephone : +44 (0) 1772 322 200
Website www.evansvanodine.co.uk
Evans: productcompliance@evansvanodine.co.uk

Distributor

EU Supplier: Evans Vanodine Europe (FR), 3 Boulevard de Belfort, 1st Floor, Lille, 59000, France.
Tel: +33 (0)3 76 04 21 87

### 1.4 - Emergency telephone number

- For Health Care Professionals only:
For use in the Republic of Ireland: To report a poisoning incident contact The National Poisons Information Centre, Beaumont Hospital, Dublin (01-8092166 – 8am to 10pm every day).
For use in Malta: Emergency services (Ambulance, Fire and Rescue, Police) : 112.
For use in UK: Contact the National Poisons Information Service for further advice. United Kingdom

New Safety Data Sheets - +44 (0) 1772 322 200 - Mon to Thu 8:30am to 4:30pm and Fri 8:30am to 1:30pm.
(Also available 24 hours a day on our website www.evansvanodine.co.uk)
For technical advice on this Safety Data Sheet - +44 (0) 1772 318 818 - Mon to Thu 8:00am to 5:30pm.

## SECTION 2: Hazards identification

### 2.1 - Classification of the substance or mixture

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

| | |
|---|---|
| Acute Tox. 4 Oral | Acute toxicity (oral) - Category 4 |
| Skin Corr. 1B | Skin corrosion, Category 1B |
| Eye Dam. 1 | Serious eye damage, Category 1 |

### 2.2 - Label elements

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

Contains: phosphoric acid

Signal word : Danger

# ROBO ACID

Hazard pictograms

Hazard statements

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |

Precautionary statements

| | |
|---|---|
| P260 | Do not breathe mist. |
| P270 | Do not eat, drink or smoke when using this product. |
| P280 | Wear eye protection/face protection/protective clothing/protective gloves. |
| P301+P330+P331 | IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |
| P303+P361+P353 | IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. |
| P304+P340 | IF INHALED: Remove person to fresh air and keep comfortable for breathing. |
| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P315 | Get immediate medical advice/attention. |
| P501 | Dispose of container/contents in accordance with local regulation. |
| P102 | Keep out of reach of children. |

EUH-phrases : None

### 2.3 - Other hazards

PBT substances

vPvB substances

- This product does not contain any substances classified as PBT or vPvB.
- This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

Other hazards which do not result in classification - Keep away from other chemicals especially chlorine releasing bleaches as toxic gas will be evolved.

## SECTION 3: Composition / information on ingredients

### 3.1 - Substances

Not applicable

### 3.2 - Mixtures

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| Chemical name | No. | % | Class(es) | Information on the substance |
|---|---|---|---|---|
| phosphoric acid | CAS No. : 7664-38-2<br>Index No. : 015-011-00-6<br>EC No. : 231-633-2<br>REACH No. :<br>01-2119485924-24-xxxx | 25 - < 30 | Acute Tox. 4 Oral - H302<br>Eye Dam. 1 - H318<br>Met. Corr. 1 - H290<br>Skin Corr. 1B - H314 | Skin Corr. 1B - H314 :<br>25<=%<=100<br>Skin Irrit. 2 - H315 :<br>10<=%<25<br>Eye Irrit. 2 - H319 :<br>10<=%<25<br>Eye Dam. 1 - H318 :<br>25<=%<=100<br>(a)<br>(b) |

(a) Substance contributing to the classification

(b) Substance with exposure limite value

## SECTION 4: First aid measures

### 4.1 - Description of first aid measures

Following inhalation

- Unlikely route of exposure as the product does not contain volatile substances. If spray/mist has been inhaled, proceed as follows. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Following skin contact

- Wash immediately with:Water
- Get medical attention promptly if symptoms occur after washing.

After eye contact

- Rinse immediately with plenty of water. Remove any contact lenses, if present and easy to do, continue to rinse with eyelids apart. Get medical attention immediately.

After ingestion

- Do NOT induce vomiting.
- Rinse mouth thoroughly with water.
- Give plenty of water to drink. Get medical attention immediately.

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

Symptoms and effects - Following inhalation

- Irritation of nose, throat and airway

Symptoms and effects - Following skin contact

- Burning pain and severe corrosive skin damage. May cause serious chemical burns to the skin.

Symptoms and effects - After eye contact

- Severe eye irritation, burning and tearing. Prolonged contact causes serious eye and tissue damage.

Symptoms and effects - After ingestion

- May cause chemical burns in mouth and throat.

### 4.3 - Indication of any immediate medical attention and special treatment needed

- Treat symptomatically.
- General information: The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

## SECTION 5: Firefighting measures

### 5.1 - Extinguishing media

Suitable extinguishing media

- The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

| | |
|---|---|
| Unsuitable extinguishing media | - None |

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

| | |
|---|---|
| Special hazards arising from the substance or mixture | - Thermal decomposition or combustion products may include the following substances:<br>- Irritating gases or vapours. |

### 5.3 - Advice for firefighters

- Co-ordinate fire-fighting measures to the fire surroundings.
- Wear a self-contained breathing apparatus and chemical protective clothing.

## SECTION 6: Accidental release measures

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

| | |
|---|---|
| For non-emergency personnel | - Use personal protection equipment.<br>- See section 8.2<br>- Wear protective clothing, gloves, eye and face protection. |

### 6.2 - Environmental precautions

- Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

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

| | |
|---|---|
| Methods and material for cleaning up | - Small Spillages: Flush away spillage with plenty of water to drain.<br>- Large Spillages: Contain and absorb spillage with sand, earth or other non-combustible material. Collect and place in suitable waste disposal containers and seal securely. |

### 6.4 - Reference to other sections

- Disposal: See section 13
- Personal protection equipment: see section 8
- Safe handling: See section 7

## SECTION 7: Handling and storage

### 7.1 - Precautions for safe handling

| | |
|---|---|
| Recommendation | - Wear personal protective clothing (see section 8). |

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

- Keep/store only in original container.
- Keep container tightly closed in a cool, well-ventilated place.
- Store away from the following materials:
- Oxidising materials.
- (eg Hypochlorite / Bleach)
- Alkalis.

### 7.3 - Specific end use(s)

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- See section 1.2 of the SDS.
- See Product Information Sheet and Label for detailed use of this product.

## SECTION 8: Exposure controls/personal protection

### 8.1 - Control parameters

| **phosphoric acid (7664-38-2)** | |
|---|---|
| IOELV TWA mg/m³ (UE) | 1 mg/m³ |
| IOELV STEL mg/m³ (UE) | 2 mg/m³ |

### 8.2 - Exposure controls

Appropriate engineering controls

- Not relevant.

Individual protection measures, such as personal protective equipment

- Wear a face shield.

- Eye protection

- Chemical splash goggles or face shield.
- Wear protective gloves.

- Polyvinyl chloride (PVC).
- Wear protective clothing.

- Wear appropriate clothing to prevent any possibility of skin contact.
- Respiratory protection not required.

## SECTION 9: Physical and chemical properties

### 9.1 - Information on basic physical and chemical properties

| | | | |
|---|---|---|---|
| Physical state | Liquid | Appearance | Thin liquid |
| Colour | colourless | Odour | Almost odourless. |

| | |
|---|---|
| Odour threshold | No data available |
| pH | 0.15 |
| Melting point | -4 °C |
| Freezing point | No data available |
| Boiling point | 105 °C |
| Flash point | Not applicable |

| | |
|---|---|
| Evaporation rate | No data available |
| flammability | Not applicable |
| Lower explosion limit | Not applicable |
| Upper explosion limit | Not applicable |
| Vapour pressure | No data available |
| Vapour density | No data available |
| Relative density | No data available |
| Density | 1.179 |
| Solubility (Water) | Soluble |
| Solubility (Ethanol) | No data available |
| Solubility (Acetone) | No data available |
| Solubility (Organic solvents) | No data available |
| Log KOC | Not applicable<br>Partition coefficient n-octanol/water (Log value) |
| Auto-ignition temperature | Not applicable |
| Decomposition temperature | No data available |
| Kinematic viscosity | No data available |
| Dynamic viscosity | No data available |

Particle characteristics

| | |
|---|---|
| Particle size | Not applicable |
| Dustiness | No data available |
| Specific surface area | No data available |
| Shape | No data available |

### 9.2 - Other information

| | |
|---|---|
| VOC content | 0 % |
| Minimum ignition energy | No data available |
| Conductivity | No data available |
| Refractive index | No data available |
| Solids content | No data available |
| Surface tension | No data available |
| Saturation concentration | No data available |

## SECTION 10: Stability and reactivity

### 10.1 - Reactivity

- Reactions with the following materials may generate heat:
- Strong alkalis.

### 10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3 - Possibility of hazardous reactions

- No hazardous reaction when handled and stored according to provisions.

### 10.4 - Conditions to avoid

- There are no known conditions that are likely to result in a hazardous situation.

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## 10.5 - Incompatible materials

- Strong alkali.
- Chlorine releasing materials will liberate toxic Chlorine gas.

## 10.6 - Hazardous decomposition products

- No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1 - Information on hazard classes as defined in Regulation (EC) No 1272/2008

**Acute toxicity** - Acute toxicity (oral) - Category 4 - Harmful if swallowed.

**Toxicity : Mixture**

ATE oral : - ATE dermal : - ATE Inhalation Dust/Mist : -
ATE Inhalation Vapor : - ATE Inhalation Gas : -

| | |
|---|---|
| LD50 oral (rat) | Not applicable |
| LD50 dermal (rat) | Not applicable |
| LD50 dermal (rabbit) | Not applicable |
| LC50 inhalation gas (rat) | Not applicable |
| LC50 inhalation dusts and mists (rat) | Not applicable |
| LC50 inhalation vapours (rat) | Not applicable |

- The classification criteria have been met.
- The evaluation was carried out according to the calculation method.
- No animal testing has been carried out for this product. Any ATE figures quoted are from Toxicity Classifications that have been carried out using ATE (Acute Toxicity Estimate) Calculation Method using LD50 or ATE figures provided by the Raw Material Manufacturer.

**Skin corrosion/irritation** - Skin corrosion, Category 1B - Causes severe skin burns and eye damage.

- Causes severe burns.
- The evaluation was carried out according to the calculation method.

**Serious eye damage/eye irritation** - Serious eye damage, Category 1

- Causes serious eye damage.
- The evaluation was carried out according to the calculation method.

**Respiratory or skin sensitisation** - Not classified

**Germ cell mutagenicity** - Not classified

**Carcinogenicity** - Not classified

**Reproductive toxicity** - Not classified

**STOT-single exposure** - Not classified

**STOT-repeated exposure** - Not classified

**Aspiration hazard** - Not classified

### 11.2 - Information on other hazards

- None known.
- 11.2.1 Endocrine disrupting properties - None known.

## SECTION 12: Ecological information

### 12.1 - Toxicity

Toxicity : Mixture

| | |
|---|---|
| EC50 48 hr crustacea | No data available |
| LC50 96 hr fish | No data available |
| ErC50 algae | No data available |
| ErC50 other aquatic plants | No data available |
| NOEC chronic fish | No data available |
| NOEC chronic crustacea | No data available |
| NOEC chronic algae | No data available |
| NOEC chronic other aquatic plants | No data available |

- No Aquatic testing carried out, therefore no Aquatic Toxicity Data available specifically for this product. The Aquatic Toxicity Data, where provided by the raw material manufacturer for ingredients with aquatic toxicity, can be made available on request.
- This product does not contain any ingredients that are classified for the environment, therefore product is not classified for the environment.
- Ecotoxicity: Potentially hazardous due to the acidity of the product.

### 12.2 - Persistence and degradability

| | |
|---|---|
| Biochemical oxygen demand (BOD) | No data available |
| Chemical oxygen demand (COD) | No data available |
| % of biodegradation in 28 days | No data available |

- Product does not contain any surfactants.
- This product, at use dilutions, is readily broken down in biological effluent treatment plants.

### 12.3 - Bioaccumulative potential

| | |
|---|---|
| Bioconcentration factor (BCF) | No data available |
| Log KOC | Not applicable<br>Partition coefficient n-octanol/water (Log value) |

- There is no bioaccumulating substance in the product.

### 12.4 - Mobility in soil

- No data available.

### 12.5 - Results of PBT and vPvB assessment

- This product does not contain any substances classified as PBT or vPvB.
- This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### 12.6 - Endocrine disrupting properties

- This product does not contain any substances that are identified as having endocrine distrupting properties.

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### 12.7 - Other adverse effects

- None

## SECTION 13: Disposal considerations

### 13.1 - Waste treatment methods

| | |
|---|---|
| Waste treatment methods | - Discharge used solutions to drain. Small amounts (less than 5 Litres) of unwanted product may be flushed with water to sewer. Larger volumes must be sent for disposal as special waste. Rinse out empty container with water and consign to normal waste. |

## SECTION 14: Transport information

### 14.1 - UN number or ID number

| | | |
|---|---|---|
| UN number (ADR) | : | UN3264 |
| UN number (RID) | : | UN3264 |
| UN number (IMDG) | : | UN3264 |

### 14.2 - UN proper shipping name

| | | |
|---|---|---|
| UN proper shipping name (ADR) | : | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid) |
| UN proper shipping name (RID) | : | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid) |
| UN proper shipping name (IMDG) | : | CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid) |

### 14.3 - Transport hazard class(es)

| | | |
|---|---|---|
| ADR Transport hazard class(es) | : | 8 |
| ADR Classification code: | : | C1 |

Pictograms

8

| | | |
|---|---|---|
| Transport hazard class(es) (RID) | : | 8 |

Pictograms

8

| | | |
|---|---|---|
| Transport hazard class(es) (IMDG) | : | 8 |

Pictograms

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## 14.4 - Packing group

| | | |
|---|---|---|
| Packing group | : | III |
| Packing group (RID) | : | III |
| Packing group (IMDG) | : | III |

## 14.5 - Environmental hazards

| | | |
|---|---|---|
| Environmental hazards | : | No |
| Marine pollutant | : | No |

## 14.6 - Special precautions for user

**ADR**

| | | |
|---|---|---|
| ADR Classification code: | : | C1 |
| ADR Special provisions | : | 274 |
| ADR Limited quantity (LQ) | : | 5L |
| ADR Excepted quantities | : | E1 |
| ADR Packing instructions | : | P001 IBC03 LP01 R001 |
| ADR Special packing provisions | : | |
| ADR Mixed packing provisions | : | MP19 |
| Instructions for portable tanks and bulk containers | : | T7 |
| Special provisions for portable tanks and bulk containers | : | TP1 TP28 |
| ADR tank code | : | L4BN |
| ADR tanks special provisions | : | TU42 |
| Vehicle for tank carriage | : | AT |
| ADR Transport category | : | 3 |
| ADR Tunnel restriction code | : | E |
| ADR Special provisions loading, unloading and handling | : | |
| Special provisions - Packages | : | V12 |
| Special provisions - Bulk | : | |
| Special provisions - Operation | : | |
| ADR Hazard identification number (Kemler No.) | : | 80 |

**RID**

| | | |
|---|---|---|
| Special provisions | : | |
| Limited quantity (LQ) | : | |
| Excepted quantities | : | |

| **IMDG** | | |
|---|---|---|
| Special provisions | : | 223 274 |
| Limited quantity (LQ) | : | 5 L |
| Excepted quantities | : | E1 |
| Packing instructions | : | P001 LP01 |
| Special packing provisions | : | |
| IBC instruction(s) | : | IBC03 |
| IBC provisions | : | |
| Instructions for portable tanks and bulk containers | : | T7 |
| Special provisions for portable tanks and bulk containers | : | TP1 TP28 |
| EmS codes | : | F-A, S-B |
| Stowage and handling | : | Category A<br>SW2 |
| Segregation | : | SGG1 SG36 SG49 |
| Properties and observations | : | Causes burns to skin, eyes and mucous membranes. |

### 14.7 - Maritime transport in bulk according to IMO instruments

- Not relevant for a packaged product.

## SECTION 15: Regulatory information

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

| | |
|---|---|
| Substances REACH candidates | None |
| Substances Annex XIV | None |
| Substances Annex XVII | None |
| VOC content | 0 % |

- Safety Data Sheet prepared in accordance with EU Regulation: "REACH Commission Regulation (EU) No 2020/878 (which amends Regulation (EC) No 2015/830, 453/2010 & 1907/2006)." and UK Regulation: "SI 2020 No. 1577 - The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.".

- The product is as classified under - EU GHS: CLP - "Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures." ." and UK Regulation: "SI 2020 No. 1577 - The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.".

- Ingredients are listed with classification under - EU GHS: CLP - "Regulation (EC) No 1272/2008 classification, labelling & packaging of substances & mixtures." and UK GHS: "SI 2020 No. 1567 - The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020." (which amends SI 2019 No.720).

- This product does not contain any surfactants.

### 15.2 - Chemical Safety Assessment

| | |
|---|---|
| Chemical safety assessment carried out for the product | - No chemical safety assessment has been carried out as not applicable as this product is a mixture. |

## SECTION 16: Other information

SDS versions

# ROBO ACID

| Version | Issue date | Author | Description of the amendments |
|---|---|---|---|
| 5 | 01/04/2026 | | SDS prepared on new SDS software.<br>- No change in Product Classification. |

Abbreviations and acronyms

- ADR: The Agreement concerning the International Carriage of Dangerous Goods by Road
- ATE: Acute Toxicity Estimate.
- LC50: Lethal Concentration to 50 % of a test animals.
- LOEC: Lowest Observed Effect Concentration.
- LD50: Lethal Dose to 50% of a test animals.
- LOEL: Lowest Observed Adverse Effect Level.
- DNEL: Derived no-effect level.
- EC50: Effective concentration of the substance that causes adverse effects in 50% of test animals.
- IATA: International Air Transport Association.
- IMDG: International Maritime Dangerous Goods.
- EC No: European Community number
- NOEC: No Observed Effect Concentration.
- NOEL: No observable effect level.
- CAS No.: Chemical Abstracts Service number.
- ICAO: International Civil Aviation Organization
- PBT: Persistent, Bioaccumulative and Toxic.
- PNEC: Predicted no-effect concentration.
- RID: International Carriage of Dangerous Goods by Rail.
- STEL: Short-term exposure limit
- TWA: Time weighted average
- OEL: Occupational exposure limit.
- vPvB: very Persistent and very Bioaccumulative.
- REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals.

Data sources:

CLP Class - Table 3.1 List of harmonised classification and labelling of hazardous substances. ECHA - C&L Inventory database.

Material Safety Data Sheet, Miscellaneous manufacturers.

Evaluation methods

For Methods used for Classification: See sections 11.1 for Health & 12.1 for Environmental.

Texts of the regulatory sentences

| | |
|---|---|
| Acute Tox. 4 Oral | Acute toxicity (oral) - Category 4 |
| Eye Dam. 1 | Serious eye damage, Category 1 |
| H302 | Harmful if swallowed. |
| H314 | Causes severe skin burns and eye damage. |
| Met. Corr. 1 | Corrosive to metals - Category 1 |
| Skin Corr. 1B | Skin corrosion, Category 1B |

*** *** ***