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



SAFETY DATA SHEET ROBO ACID

SECTION 1: Identification of the substance/mixture and of the company/undertaking			
1.1. Product identifier			
Product name	ROBO ACID		
Product number	R101 EV		
Internal identification	Livestock		
UFI	UFI: 5NM3-7G5C-E605-W69R		
1.2. Relevant identified uses of the substance or mixture and uses advised against			
Identified uses	Acid Cleaner for the Descaling of Robotic Milking Equipment.		
1.3. Details of the supplier of the safety data sheet			
Supplier	UK Supplier: Evans Vanodine International plc, Brierley Road, Walton Summit, Preston, PR5 8AH, UK. Tel: 01772 322 200. e-mail: productcompliance@evansvanodine.co.uk	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			
Emergency telephone	New Safety Data Sheets - 01772 322 200 - Mon to Thurs 8.30am to 4.30pm - Fri 8.30am to 1.30pm (Also available 24/7 from our website <u>www.evansvanodine.co.uk)</u> For Technical Advice about this SDS - 01772 318 818 - Mon to Thurs 8.00am to 5.30pm		
National emergency Telephone number	For Health Care Professionals only For use in UK: Contact the National Poisons Information Service for further advice. 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		
SECTION 2: Hazards identif	ication		

2.1. Classification of the substance or mixture Classification (EU: 1272/2008 & UK: SI 2020/1567 which amends SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Acute Tox. 4 - H302 Skin Corr. 1B - H314 Eye Dam. 1 - H318
Environmental hazards	Not Classified
2.2. Label elements	
Hazard pictograms	



Danger

Hazard statements	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage.
Precautionary statements	 P102 Keep out of reach of children. P260 Do not breathe mist. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P270 Do not eat, drink or smoke when using this product. 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 contents/ container in accordance with local regulations.
Contains	PHOSPHORIC ACID

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB. Including - Endocrine disrupting properties: None known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

	25-<30%
PHOSPHORIC ACID	
CAS number: 7664-38-2 EC number: 231-633-2	
Spec Conc Limits :- Skin Corr. 1B (H314) ≥ 25%, Skin Irrit. 2 (H315) >10% <25%, Eye Irrit. 2 (H319) >1	0%
Classification	
Acute Tox. 4 - H302	
Skin Corr. 1B - H314	
Eye Dam. 1 - H318	

The Full Text for all Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

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.
Ingestion	Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention immediately.
Skin contact	Wash with plenty of water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse. Get medical attention immediately.

4.2. Most important symptoms and effects, both acute and delayed				
General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.			
Inhalation	Irritation of nose, throat and airway.			
Ingestion	May cause chemical burns in mouth and throat.			
Skin contact	Burning pain and severe corrosive skin damage. May cause serious chemical burns to the skin.			
Eye contact	Severe irritation, burning and tearing. Prolonged contact causes serious eye and tissue damage.			
4.3. Indication of any immedia	te medical attention and special treatment needed			
Notes for the doctor	Treat symptomatically.			
SECTION 5: Firefighting meas	sures			
5.1. Extinguishing media				
Suitable extinguishing media	The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.			
5.2. Special hazards arising fr	om the substance or mixture			
Specific hazards	Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours.			
5.3. Advice for firefighters				
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.			
SECTION 6: Accidental release	e measures			
6.1. Personal precautions, pro	6.1. Personal precautions, protective equipment and emergency procedures			
Personal precautions	Wear protective clothing, gloves, eye and face protection. For personal protection, see Section 8.			
Personal precautions 6.2. Environmental precaution	Section 8.			
	Section 8.			
6.2. Environmental precaution	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.			
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6.2. Environmental precaution Environmental precautions 6.3. Methods and material for	Section 8. Signification Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Containment and cleaning up Small Spillages: Flush away spillage with plenty of water. 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.			
6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up	Section 8. Signification Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Containment and cleaning up Small Spillages: Flush away spillage with plenty of water. 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.			
 <u>6.2. Environmental precaution</u> Environmental precautions <u>6.3. Methods and material for</u> Methods for cleaning up <u>6.4. Reference to other section</u> 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. <u>containment and cleaning up</u> Small Spillages: Flush away spillage with plenty of water. 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. <u>ns</u> For personal protection, see Section 8.			
 <u>6.2. Environmental precaution</u> Environmental precautions <u>6.3. Methods and material for</u> Methods for cleaning up <u>6.4. Reference to other section</u> Reference to other sections 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. <u>containment and cleaning up</u> Small Spillages: Flush away spillage with plenty of water. 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. <u>ns</u> For personal protection, see Section 8. <u>rage</u>			
 <u>6.2. Environmental precaution</u> Environmental precautions <u>6.3. Methods and material for</u> Methods for cleaning up <u>6.4. Reference to other section</u> Reference to other sections <u>SECTION 7: Handling and stores</u> 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. <u>containment and cleaning up</u> Small Spillages: Flush away spillage with plenty of water. 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. <u>ns</u> For personal protection, see Section 8. <u>rage</u>			
 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and stor 7.1. Precautions for safe hance Usage precautions 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. Containment and cleaning up Small Spillages: Flush away spillage with plenty of water. 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. MS For personal protection, see Section 8. rage			
 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and stor 7.1. Precautions for safe hance Usage precautions 	Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. containment and cleaning up Small Spillages: Flush away spillage with plenty of water. 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. ns For personal protection, see Section 8. rage ling Wear protective clothing, gloves, eye and face protection. DO NOT mix with other chemicals.			
 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and store 7.1. Precautions for safe hance Usage precautions 7.2. Conditions for safe storage 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. <u>containment and cleaning up</u> Small Spillages: Flush away spillage with plenty of water. 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. <u>ns</u> For personal protection, see Section 8. <u>rage</u> <u>ling</u> Wear protective clothing, gloves, eye and face protection. DO NOT mix with other chemicals. <u>e, including any incompatibilities</u> Keep only in the original container in a cool, well-ventilated place. Store away from the			
 6.2. Environmental precaution Environmental precautions 6.3. Methods and material for Methods for cleaning up 6.4. Reference to other section Reference to other sections SECTION 7: Handling and store 7.1. Precautions for safe hand Usage precautions 7.2. Conditions for safe storage Storage precautions 	Section 8. Section 8. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body. <u>containment and cleaning up</u> Small Spillages: Flush away spillage with plenty of water. 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. <u>ns</u> For personal protection, see Section 8. <u>rage</u> <u>ling</u> Wear protective clothing, gloves, eye and face protection. DO NOT mix with other chemicals. <u>e, including any incompatibilities</u> Keep only in the original container in a cool, well-ventilated place. Store away from the			

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters Occupational exposure limits

PHOSPHORIC ACID

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³ Short-term exposure limit (15-minute): WEL 2 mg/m³ WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls	Not applicable.	
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield.	
Hand protection	Wear protective gloves. (Household rubber gloves.)	
Respiratory protection	Respiratory protection not required.	
SECTION 9: Physical and chemical properties		

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

9.1. Information on basic physi	
Appearance	Liquid.
Colour	Clear. Colourless.
Odour	Faint
рН	pH (concentrated solution): 0.15
Melting point	-4°C
Initial boiling point and range	105°C @ 760 mm Hg
Flash point	Boils without flashing.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	Not applicable.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Density=1.179 @ 20°C
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	Not applicable.
Viscosity	Not available.
9.2. Other information	
Other information	None.
Particle size	Not applicable.

SECTION 10: Stability and rea	ctivity
10.1. Reactivity	
Reactivity	Reacts with alkalis and generates heat.
10.2. Chemical stability	
Stability	No particular stability concerns.
10.3. Possibility of hazardous	reactions
Possibility of hazardous reactions	See sections 10.1,10.4 & 10.5
10.4. Conditions to avoid	
Conditions to avoid	There are no known conditions that are likely to result in a hazardous situation.
10.5. Incompatible materials	
Materials to avoid	Strong alkalis. Chlorine releasing materials will liberate toxic chlorine gas.
10.6. Hazardous decompositio	n products
Hazardous decomposition products	No known hazardous decomposition products.
SECTION 11: Toxicological info	ormation
11.1. Information on toxicologic	cal effects
Toxicological effects	We have not carried out any animal testing for this product. Any ATE figures quoted below 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.
Acute toxicity - oral	
Notes (oral LD ₅₀)	Classification criteria has been met – Product is classified as Harmful if Swallowed.
ATE oral (mg/kg)	1,666.67
Acute toxicity - dermal	
Summary	Not applicable.
<u>Acute toxicity - inhalation</u> Summary	Not applicable.
Skin corrosion/irritation Skin corrosion/irritation	Causes severe burns.
Serious eye damage/irritation Serious eye damage/irritation	Causes serious eye damage.
<u>Respiratory sensitisation</u> Summary	Not applicable.
<u>Skin sensitisation</u> Summary	Not applicable.
<u>Germ cell mutagenicity</u> Summary <u>Carcinogenicity</u>	Not applicable.
Summary	Not applicable.

Reproductive toxicity		
Summary	Not applicable.	
Specific target organ toxicity	- single exposure	
Summary	Not applicable.	
Specific target organ toxicity	- repeated exposure	
Summary	Not applicable.	
Aspiration hazard		
Summary	Not applicable.	
11.2 Information on other Ha	zards None known.	
11.2.1 Endocrine disrupting p	properties None known.	
SECTION 12: Ecological info	rmation	
Ecotoxicity	The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.	
<u>12.1. Toxicity</u>		
Toxicity	We have not carried out any Aquatic testing, therefore we have no Aquatic Toxicity Data 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.	
12.2. Persistence and degrad	lability	
Persistence and degradability	This product, at use dilutions, is readily broken down in biological effluent treatment plants.	
12.3. Bioaccumulative potent	ial	
Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.	
Partition coefficient	Not applicable.	
12.4. Mobility in soil		
Mobility	Not known.	
12.5. Results of PBT and vPvB assessment		
Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.	
12.6. Endocrine disrupting properties	None known.	
12.7. Other adverse effects		
Other adverse effects	None known.	
SECTION 13: Disposal consi	derations	
13.1. Waste treatment metho	ds	
Disposal methods	Discharge used solutions to drain. Small amounts (less than 5 Litres) of unwanted product	

Disposal 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

<u>14.1. UN number</u>			
UN No. (ADR/RID)	3264		
UN No. (IMDG)	3264		
UN No. (ICAO)	3264		
14.2. UN proper shipping name			
Proper shipping name (ADR/RI	D) CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid solution)		
Proper shipping name (IMDG)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid solution)		
Proper shipping name (ICAO)	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (phosphoric acid solution)		
14.3. Transport hazard class(es)			
ADR/RID class	Class 8 : Corrosive Substances.		
ADR/RID label	8		
IMDG class	Class 8 : Corrosive Substances.		
ICAO class/division	Class 8 : Corrosive Substances.		

Transport labels



14.4. Packing group		
ADR/RID packing group	II	
IMDG packing group	II	
ICAO packing group	II	
14.5. Environmental hazards		
Environmentally hazardous substance/marine pollutant No.		
14.6. Special precautions for user		

EmS F-A, S-B

Tunnel restriction code (E)

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk according to Not relevant for a packaged product. Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

Legislation	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 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).
	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).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out as not applicable as this product is a mixture.

SECTION 16: Other information	
Abbreviations and acronyms used in the safety data sheet	 PBT: Persistent, Bioaccumulative and Toxic substance. vPvB: Very Persistent and Very Bioaccumulative. ATE: Acute Toxicity Estimate. ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road. IMDG: International Maritime Dangerous Goods. ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air. REACH: The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020 No. 1577. GHS: Globally Harmonized System. Spec Conc Limits = Specific Concentration Limits.
Classification abbreviations and acronyms	Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation
Key literature references and sources for data	Material Safety Data Sheet, Miscellaneous manufacturers. CLP Class - Table 3.1 List of harmonised classification and labelling of hazardous substances. ECHA - C&L Inventory database.
Classification procedures	Calculation Method.
Revision comments	New Evans Logo & EU Address - No change in Product Classification. (Changes made to sections 1+16)
Revision date	01/10/2024
Revision	4
	The Hazard Statements listed below in this Section No 16 relate to the Raw Materials (Ingredients) in the Product (as listed in Section 3) and NOT the product itself. For the Hazard Statements relating to this Product see Section 2.
Hazard statements in full	H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.