SAFETY DATA SHEET
PERADOX

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

1.1. Product identifier

Product name PERADOX

Product number C015 EV

Internal identification Livestock

UFI UFI: 044M-S1J8-4G0A-65VF

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

Identified uses Peracetic Acid & Hydrogen Peroxide Disinfectant.

1.3. Details of the supplier of the safety data sheet

Supplier

UK Supplier:
Evans Vanodine International plc
Brierley Road,
Walton Summit,
Preston. UK. PR5 8AH
Tel: 01772 322 200
e-mail: productcompliance@evansvanodine.co.uk

EU Supplier:
Evans Vanodine Europe
6-9 Trinity Street, Dublin 2.
D02 EY47.
Republic of Ireland.

1.4. Emergency telephone number

Emergency telephone New Safety Data Sheets - 01772 322 200 - Mon to Thur. 8.30am to 4.30pm - Fri 8.30am to 1.30pm (Also available 24/7 from our website www.evansvanodine.co.uk) For Technical Advice about this SDS - 01772 318 818 - Mon to Thur 8.30am to 4.45pm - Fri 8.30am to 1.30pm

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 identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards Ox. Liq. 3 - H272 Met. Corr. 1 - H290

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335

Environmental hazards Aquatic Chronic 1 - H410

2.2. Label elements

Hazard pictograms

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Signal word	Danger
Hazard statements	H272 May intensify fire; oxidiser. H290 May be corrosive to metals. H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H410 Very toxic to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. P261 Avoid breathing mist. P270 Do not eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P220 Keep away from combustible materials. 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. P403+P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/ container in accordance with local regulations.
Supplemental label information	EUH071 Corrosive to the respiratory tract.
Contains	HYDROGEN PEROXIDE SOLUTION ... %, ACETIC ACID ...%, PERACETIC 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

HYDROGEN PEROXIDE SOLUTION ... % **20%**

CAS number: 7722-84-1 EC number: 231-765-0

Spec Conc Limits :- Ox. Liq. 1 (H271) >=70%, Ox. Liq. 2 (H272) >=50% <70%, Skin Corr. 1A (H314) >=70%, Skin Corr. 1B (H314) >=50% <70%, Skin Irrit. 2 (H315) >=35% <50%, STOT SE 3 (H335) >=35%, Eye Dam. 1 (H318) >=8% <50%, Eye Irrit. 2 (H319) >=5% <8%

Classification

Ox. Liq. 1 - H271
Acute Tox. 4 - H302
Acute Tox. 4 - H332
Skin Corr. 1A - H314
Eye Dam. 1 - H318
STOT SE 3 - H335
Aquatic Chronic 3 - H412

ACETIC ACID ...% **10%**

CAS number: 64-19-7 EC number: 200-580-7

Spec Conc Limits :- Skin Corr. 1A (H314) >=90%, Skin Corr. 1B (H314) >=25% <90%, Skin Irr. (H315) >=10% <25%, Eye Irr. 2 (H319) >=10% <25%

Classification
Flam. Liq. 3 - H226
Skin Corr. 1A - H314
Eye Dam. 1 - H318

PERACETIC ACID ...% **5.0%**

CAS number: 79-21-0 EC number: 201-186-8

M factor (Acute) = 1 M factor (Chronic) = 10

Spec Conc Limits :- STOT SE 3 (H335) >=1%

Classification
Flam. Liq. 3 - H226
Org. Perox. D - H242
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Corr. 1A - H314
Eye Dam. 1 - H318
STOT SE 3 - H335
Aquatic Acute 1 - H400
Aquatic Chronic 1 - H410

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation 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. Get medical attention immediately. Continue to rinse.

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. Coughing, chest tightness, feeling of chest pressure.

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 immediate medical attention and special treatment needed

Notes for the doctor Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Oxidising - Supports combustion. Extinguish with the following media: Water spray. Foam, carbon dioxide or dry powder.

5.2. Special hazards arising from the substance or mixture

Specific hazards Thermal decomposition or combustion products may include the following substances: Irritating gases or vapours. If involved in fire, may decompose yeilding oxygen which will support combustion. Oxidising.

5.3. Advice for firefighters

Protective actions during firefighting Cool containers exposed to flames with water until well after the fire is out.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing, gloves, eye and face protection. Avoid inhalation of vapours. For personal protection, see Section 8.

6.2. Environmental precautions

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 for 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.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Wear protective clothing, gloves, eye and face protection. Avoid inhalation of vapours.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep only in the original container in a cool, well-ventilated place. Keep away from flammable and combustible materials. Protect from light. Store away from the following materials: Alkalis. & Common metals.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

Usage description See Product Information Sheet & Label for detailed use of this product.

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SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

HYDROGEN PEROXIDE SOLUTION ... %

Long-term exposure limit (8-hour TWA): WEL 1 ppm 1,4 mg/m³
Short-term exposure limit (15-minute): WEL 2 ppm 2,8 mg/m³
WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment

Appropriate engineering controls	This product must not be handled in a confined space without adequate ventilation.
Eye/face protection	The following protection should be worn: Chemical splash goggles or face shield.
Hand protection	Wear protective gloves. Polyvinyl chloride (PVC).
Other skin and body protection	Wear appropriate clothing to prevent any possibility of skin contact.
Respiratory protection	Respiratory protection not required.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Clear. Colourless.
Odour	Pungent. Acetic acid.
pH	pH (concentrated solution): <1.0
Melting point	-30°C
Initial boiling point and range	65°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	1.080 @ 20°C
Solubility(ies)	Soluble in water.
Partition coefficient	Not applicable.
Auto-ignition temperature	Not applicable.
Decomposition Temperature	>=60°C Self-Accelerating decomposition temperature (SADT).
Viscosity	Not available.

9.2. Other information

Other information None.

Particle size Not applicable.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Reacts with alkalis and generates heat. The following materials may react strongly with the product: Alkaline earth metals. Powdered metal.

10.2. Chemical stability

Stability Inadequately vented containers may become pressurised.

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 Avoid exposure to high temperatures or direct sunlight. Avoid Storage above 30°C

10.5. Incompatible materials

Materials to avoid Strong acids. Aluminium, Tin, Zinc and their alloys.

10.6. Hazardous decomposition products

Hazardous decomposition products Oxygen. When heated, vapours/gases hazardous to health may be formed.

SECTION 11: Toxicological information

11.1. Information on toxicological 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) 1,308.13

Acute toxicity - dermal

Notes (dermal LD_{50}) Classification criteria has been met – Product is classified as Harmful in contact with skin.

ATE dermal (mg/kg) 1,147.0

Acute toxicity - inhalation

Notes (inhalation LC_{50}) Classification criteria has been met – Product is classified as Harmful if Inhaled.

ATE inhalation (vapours mg/l) 11.0

Skin corrosion/irritation

Skin corrosion/irritation Causes severe burns.

Serious eye damage/irritation

Serious eye damage/irritation Causes serious eye damage.

Respiratory sensitisation

Summary Not applicable.

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Skin sensitisation

Summary Not applicable.

Germ cell mutagenicity

Summary Not applicable.

Carcinogenicity

Summary Not applicable.

Reproductive toxicity

Summary Not applicable.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

Target organs Respiratory system, lungs

Specific target organ toxicity - repeated exposure

Summary Not applicable.

Aspiration hazard

Summary Not applicable.

11.2 Information on other Hazards 11.2.1 Endocrine disrupting properties None known.

SECTION 12: Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

12.1. Toxicity

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 degradability

Persistence and degradability This product, at use dilutions, is readily broken down in biological effluent treatment plants.

12.3. Bioaccumulative potential

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.

12.6. Other adverse effects

Other adverse effects Now section 12.7: None known.

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SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

14.1. UN number

UN No. (ADR/RID) 3149

UN No. (IMDG) 3149

UN No. (ICAO) 3149

14.2. UN proper shipping name

Proper shipping name (ADR/RID) HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

Proper shipping name (IMDG) HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

Proper shipping name (ICAO) HYDROGEN PEROXIDE AND PEROXYACETIC ACID MIXTURE, STABILIZED

14.3. Transport hazard class(es)

ADR/RID class Division 5.1: Oxidizing substances.

ADR/RID subsidiary risk Class 8: Corrosive substances.

ADR/RID label 5.1 & 8

IMDG class Division 5.1: Oxidizing substances.

IMDG subsidiary risk Class 8: Corrosive substances.

ICAO class/division Division 5.1: Oxidizing substances.

ICAO subsidiary risk 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

14.6. Special precautions for user

EmS F-H, S-Q

Tunnel restriction code (E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant. for a packaged product.

SECTION 15: Regulatory information

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

EU 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.".
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.".

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
Acute Tox. = Acute toxicity
Aquatic Acute = Hazardous to the aquatic environment (acute)
Aquatic Chronic = Hazardous to the aquatic environment (chronic)
Eye Dam. = Serious eye damage
Eye Irrit. = Eye irritation
Flam. Liq. = Flammable liquid
Met. Corr. = Corrosive to metals
Ox. Liq. = Oxidising liquid
Org. Perox. = Organic peroxide
Skin Corr. = Skin corrosion
Skin Irrit. = Skin irritation
STOT SE = Specific target organ toxicity-single exposure

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.

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Classification procedures according to SI 2019 No. 720	Calculation Method.
Revision comments	New Format Safety Data Sheet prepared in accordance with REACH Commission Regulation (EU) No 2020/878 (which amends Regulation (EC) No 453/2010 & 1907/2006). - No change in Product Classification. (Changes made to sections 2,3,9,11,12,15+16)
Revision date	10/12/2022
Revision	13
SDS status	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	H226 Flammable liquid and vapour. H242 Heating may cause a fire. H271 May cause fire or explosion; strong oxidiser. H272 May intensify fire; oxidiser. H290 May be corrosive to metals. H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H332 Harmful if inhaled. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.