SAFETY DATA SHEET
CRYSTAL

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

1.1. Product identifier

Product name CRYSTAL

Product number R060 EV

Internal identification Livestock

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

Identified uses Alkaline & Chlorine based Powdered Cleaner for milk pipelines and parlours.

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). .
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 (EC 1272/2008)

Physical hazards Not Classified

Health hazards Skin Corr. 1A - H314 Eye Dam. 1 - H318 STOT SE 3 - H335

Environmental hazards Aquatic Chronic 2 - H411

2.2. Label elements

Hazard pictograms



Signal word Danger

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Hazard statements	H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritation. H411 Toxic to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. P260 Do not breathe dust. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P235+P410 Keep cool. Protect from sunlight. 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. P402+P404 Store in a dry place. Store in a closed container. P501 Dispose of contents/ container in accordance with local regulations.
Supplemental label information	EUH031 Contact with acids liberates toxic gas.
Contains	SODIUM HYDROXIDE, TROCLOSENE SODIUM, DIHYDRATE (Sodium Dichloroisocyanurate Dihydrate)

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

SODIUM HYDROXIDE **30-60%**

CAS number: 1310-73-2 EC number: 215-185-5 REACH registration number: 01-2119457892-27-xxxx

Spec Conc Limits :- Skin Corr. 1A (H314) >= 5 %, Skin Corr. 1B (H314) >=2% <5 %, Skin Irrit. 2 (H315) >=0.5%<2%, Eye Irrit. 2 (H319) >=0.5% <2%

Classification
Met. Corr. 1 - H290
Skin Corr. 1A - H314
Eye Dam. 1 - H318

SODIUM CARBONATE **25-30%**

CAS number: 497-19-8 EC number: 207-838-8

Classification
Eye Irrit. 2 - H319

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TROCLOSENE SODIUM, DIHYDRATE (Sodium Dichloroisocyanurate Dihydrate)	**10-15%**
CAS number: 51580-86-0	EC number: 220-767-7
M factor (Acute) = 1	M factor (Chronic) = 1

Classification
Acute Tox. 4 - H302
Eye Irrit. 2 - H319
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.

Composition comments Available Chlorine 6% minimum.

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention if any discomfort continues.

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

Skin contact Wash with plenty of water. Get medical attention promptly if symptoms occur after washing.

Eye contact Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. 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.

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

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.

5.3. Advice for firefighters

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

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SECTION 6: Accidental release measures

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. Avoid inhalation of dust.

6.2. Environmental precautions

Environmental precautions This product is dangerous for the environment:

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 suitable protective clothing, gloves and eye/face protection. Avoid inhalation of dust. Never add water directly to this product as it may cause a vigorous reaction or boiling. Always dilute by carefully pouring the product into water. Contact with acids liberates toxic gas.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Store away from the following materials: Acids.

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.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

SODIUM HYDROXIDE

Short-term exposure limit (15-minute): WEL 2 mg/m³

SODIUM CARBONATE

Long-term exposure limit (8-hour TWA): WEL 5 mg/m³
WEL = Workplace Exposure Limit.

8.2. Exposure controls

Protective equipment



Appropriate engineering controls Not relevant.

Eye/face protection The following protection should be worn: Chemical splash goggles or face shield.

Hand protection Wear protective gloves. Polyvinyl chloride (PVC).

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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	Powder.
Colour	White.
Odour	Faint Chlorine.
pH	pH (diluted solution): 13.00 @ 100g / 40 Litres
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Relative density	Not applicable.
Solubility(ies)	Soluble in water.

9.2. Other information

Other information	None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	Generates toxic gas in contact with acid. Reacts violently with strong acids. The product reacts with water and will generate heat. The product will harden into a solid mass in contact with water and moisture.

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	The product will harden into a solid mass in contact with water and moisture.

10.5. Incompatible materials

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

10.6. Hazardous decomposition products

Hazardous decomposition products	Toxic chlorine gas can be released if heated.

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.

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Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	6,681.82

SECTION 12: Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects. Another potential hazard is from the alkalinity of the product.

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.

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. Other adverse effects

Other adverse effects Not known.

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)	3262
UN No. (IMDG)	3262
UN No. (ICAO)	3262

14.2. UN proper shipping name

Proper shipping name (ADR/RID)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, solid and troclosene sodium, dihydrate)
Proper shipping name (IMDG)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, solid and troclosene sodium, dihydrate)
Proper shipping name (ICAO)	CORROSIVE SOLID, BASIC, INORGANIC, N.O.S. (sodium hydroxide, solid and troclosene sodium, dihydrate)

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



14.6. Special precautions for user

EmS	F-A, S-B
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 2015/830 (which amends Regulation (EC) No 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

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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: Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006. GHS: Globally Harmonized System. Spec Conc Limits = Specific Concentration Limits.
Classification abbreviations and acronyms	Aquatic Acute = Hazardous to the aquatic environment (acute) Aquatic Chronic = Hazardous to the aquatic environment (chronic) Acute Tox. = Acute toxicity Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Met. Corr. = Corrosive to metals 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.
Classification procedures according to Regulation (EC) 1272/2008	Calculation Method.
Revision comments	SDS re-issued after a 3 year old SDS Review.
Revision date	23/08/2021
Revision	10
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	H290 May be corrosive to metals. H302 Harmful if swallowed. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects.