

**Section 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

**Product name:** ZINC SULPHATE SOLUTION 5%

**Product code:** ZINSUL5

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

**Use of substance / mixture:** Beverage Processing Aids and Other Usages

**1.3. Details of the supplier of the safety data sheet**

**Company name:** Murphy and Son Ltd  
Murphy & Son Ltd  
Alpine St, Old Basford  
Nottingham  
NG6 0HQ  
United Kingdom

**Tel:** 01462 457186

**Email:** [technical@murphyandson.co.uk](mailto:technical@murphyandson.co.uk)

**1.4. Emergency telephone number**

**Emergency tel:** 01462 457186  
(office hours only)

**Section 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification under CLP:** Aquatic Chronic 2: H411; Eye Dam. 1: H318

**Most important adverse effects:** Causes serious eye damage. Toxic to aquatic life with long lasting effects.

**2.2. Label elements**

**Label elements under CLP:**

**Hazard statements:** H318: Causes serious eye damage.  
H411: Toxic to aquatic life with long lasting effects.

**Signal words:** Danger

**Hazard pictograms:** GHS05: Corrosion  
GHS09: Environmental



**Precautionary statements:** P273: Avoid release to the environment.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON CENTER or doctor.

P391: Collect spillage.

P501: Dispose of contents/container to hazardous or special waste collection point.

**2.3. Other hazards**

**PBT:** This product is not identified as a PBT/vPvB substance.

**Section 3: Composition/information on ingredients**

**3.2. Mixtures**

**Hazardous ingredients:**

ZINC SULPHATE - REACH registered number(s): 01-2119474684-27-XXXX

EINECS	CAS	PBT / WEL	CLP Classification	Percent
231-793-3	7733-02-0	-	Acute Tox. 4: H302; Eye Dam. 1: H318; Aquatic Chronic 1: H410; Aquatic Acute 1: H400	1-10%

**Section 4: First aid measures**

**4.1. Description of first aid measures**

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

**4.3. Indication of any immediate medical attention and special treatment needed**

**Immediate / special treatment:** Eye bathing equipment should be available on the premises.

**Section 5: Fire-fighting measures**

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**5.1. Extinguishing media**

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

**5.2. Special hazards arising from the substance or mixture**

**Exposure hazards:** In combustion emits toxic fumes.

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**Section 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

**6.2. Environmental precautions**

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

**6.3. Methods and material for containment and cleaning up**

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 8 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air.

**7.2. Conditions for safe storage, including any incompatibilities**

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids.

**7.3. Specific end use(s)**

**Specific end use(s):** Beverage Processing Aids and Other Usages

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Workplace exposure limits:** No data available.

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**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Ensure there is sufficient ventilation of the area. The floor of the storage room must be impermeable to prevent the escape of liquids.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

**Section 9: Physical and chemical properties**

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

**State:** Liquid

**Colour:** Colourless

**Odour:** Odourless

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** Soluble

**Viscosity:** No data available.

**Boiling point/range°C:** >100

**Melting point/range°C:** No data available.

**Flammability limits %: lower:** Not applicable.

**upper:** Not applicable.

**Flash point°C:** Not applicable.

**Part.coeff. n-octanol/water:** No data available.

**Autoflammability°C:** Not applicable.

**Vapour pressure:** No data available.

**Relative density:** 1.03-1.05

**pH:** 5-6

**9.2. Other information**

**Other information:** No data available.

**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** Stable under recommended transport or storage conditions.

**10.2. Chemical stability**

**Chemical stability:** Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat.

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**10.5. Incompatible materials**

**Materials to avoid:** Strong oxidising agents. Strong acids.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** In combustion emits toxic fumes.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Hazardous ingredients:**

**ZINC SULPHATE**

IVN	RAT	LD50	69900	µg/kg
ORL	MUS	LD50	245	mg/kg
ORL	RAT	LD50	1710	mg/kg

**Relevant hazards for substance:**

Hazard	Route	Basis
Serious eye damage/irritation	OPT	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Not biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** Bioaccumulation potential.

**12.4. Mobility in soil**

**Mobility:** Readily absorbed into soil.

**12.5. Results of PBT and vPvB assessment**

**PBT identification:** This product is not identified as a PBT/vPvB substance.

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**12.6. Other adverse effects**

**Other adverse effects:** Toxic to aquatic organisms. Toxic to soil organisms.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Section 14: Transport information**

**14.1. UN number**

**UN number:** UN3082

**14.2. UN proper shipping name**

**Shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(ZINC SULPHATE)

**14.3. Transport hazard class(es)**

**Transport class:** 9

**14.4. Packing group**

**Packing group:** III

**14.5. Environmental hazards**

**Environmentally hazardous:** Yes

**Marine pollutant:** Yes

**14.6. Special precautions for user**

**Special precautions:** No special precautions.

**Tunnel code:** E

**Transport category:** 3

**Section 15: Regulatory information**

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

**15.2. Chemical Safety Assessment**

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

**Section 16: Other information**

**Other information**

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

[cont...]

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**Phrases used in s.2 and s.3:** H302: Harmful if swallowed.  
H318: Causes serious eye damage.  
H410: Very toxic to aquatic life with long lasting effects.  
H411: Toxic to aquatic life with long lasting effects.

**Legend to abbreviations:** PNEC = predicted no effect concentration

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

LDLO = lethal dose low

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular/corneal

OPT = optical

INH = inhalation

PCP = physico-chemical properties

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.