Safety Data Sheet

OXALIC ACID

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

1.1 Product identifier

Oxalic acid

REACH registration number: not available.

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

Chemical product used in furniture stain removal.

Uses advised against: not available.

1.3 Details of the supplier of the safety data sheet

Gilboy's Ltd, Staverton Works, New Lane, Staverton, Devon TQ9 6AQ, UK; 01803 762763

1.4 Emergency telephone number

Gilboy's Ltd: 01803 762763 (UK business hours).

UK: 111 (public NHS number for less urgent medical problems). Medical professionals can contact the National Poisons Information Service (NPIS): 0344 892 0111.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to CLP Regulation (1272/2008)

Acute Tox 4, H302; Acute Tox 4, H312; Eye Dam 1, H318.

See Section 16 'Other information' for full text of the H-statements.

2.2 Label elements

Signal word: Danger

Hazard statements:

Causes serious eye damage.

Harmful if swallowed or in contact with skin.

Precautionary statements

general: Keep out of reach of children.

prevention: Wear protective gloves/protective clothing and eye protection.

response: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

IF ON SKIN: Wash with plenty of water. Call a doctor if you feel unwell.

storage: None.

disposal: Dispose of contents/container to incineration or recycling in accordance with local/national regulation.

Supplemental information	Not available.
2.3 Other hazards	Not available.

SECTION 3: Composition/information on ingredients

3.1 Substances [a]

Declarable components	*Conc. (wt%)*	*EC No.*	*CAS No.*	*ATE, M-factor and SCL*
Oxalic acid	> 95	205-634-3	6153-56-6	Acute Tox 4, H302; Acute Tox 4, H312; Eye Dam 1, H318
Other components				
NA				

[a] NA: not available.

SECTION 4: First aid measures

4.1 Description of first aid measures

Inhalation	For symptoms of inhalation, e.g. coughing, breathing difficulty, or respiratory irritation, remove exposed person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if symptoms persist.
Skin	If on skin, remove contaminated clothing and rinse affected area with copious water. Get medical attention if symptoms persist. Wash contaminated clothing before re-use.
Eye	If in eyes, immediately rinse with room-temperature water or eyewash for several minutes. Speed is essential. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention.
Ingestion	If swallowed, rinse mouth with water and give water to drink. Get medical attention. Do not induce vomiting, unless instructed by medical personnel.
4.2 Most important symptoms and effects, both acute and delayed	Causes serious eye damage. Harmful if swallowed or in contact with skin.
4.3 Indication of any immediate medical attention and special treatment needed	Treat symptoms as they occur. The product is acidic, and dilution with copious water or careful neutralization with weak alkali will reduce its hazardous properties.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable	Water spray, powder, foam or carbon dioxide are recommended.
Unsuitable	Not available.

5.2 Special hazards arising from the substance or mixture

The product is not classified as flammable. If involved in a fire, it will burn producing hazardous smoke, vapours and gases.

May form explosible dust–air mixture if dispersed.

5.3 Advice for firefighters

Remove containers from fire or cool them with water spray. For larger fires, firefighters should wear breathing apparatus and protective clothing.

Prevent water from firefighting from entering water-courses or drainage system.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Product is supplied in small containers for consumers which can be collected.

For large spills in a professional setting, wear personal protection. Keep unauthorised personnel from the spillage area. Avoid creating airborne dust. Ventilate area and extinguish all sources of ignition. Use only non-sparking equipment. Follow prescribed procedures for responding to large spills and reporting to appropriate authorities

6.2 Environmental precautions

Prevent product from entering water courses or drainage system.

6.3 Methods and material for containment and cleaning up

Clean up spill as soon as possible. Do not flush to sewer.

For small quantities, wipe off with cloth or paper.

For large quantities, carefully sweep up, preventing formation of dust clouds, or collect using vacuum cleaner equipped with air filtration.

The product is acidic, and dilution with water or careful neutralisation with weak alkali will reduce its hazardous properties.

Collect spill, contaminated materials, and washings in a container for disposal.

6.4 Reference to other sections

For recommended personal protective equipment, see Section 8.

For disposal considerations, see Section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid skin and eye contact with the product, and inhalation of vapour or spray. Use only in a well-ventilated area. Avoid creating airborne dust. See Section 8 for controls and personal protection.

Wash hands after use. Do not eat, drink or smoke when using this product.

Remove or extinguish sources of ignition. Use only non-sparking equipment.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry place.

7.3 Specific end use(s) Chemical product used in furniture stain removal.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

EU limit values	Oxalic acid: IOELV: 8 h TWA, 1 mg/m^3.
National limit values (UK)	Oxalic acid: WEL: 8 h TWA, 1 mg/m^3; 15 min, 2 mg/m^3.
Monitoring procedure	BS EN 14042:2003; Workplace Atmospheres; Guide for the Application and Use of Procedures for the Assessment of Exposure to Chemical and Biological Agents, or national equivalent.
Other: human health (DNELs, DMELs)	Oxalic acid: DNELs: workers, long-term exposure, systemic effects, inhalation, 3.1 mg/m^3; workers, long-term exposure, systemic effects, dermal, 0.88 mg/kg/day.
Other: environmental (PNEC)	Oxalic acid: PNECs: freshwater, 0.16 mg/L; sewage treatment plant, 1550 mg/L.

8.2 Exposure controls

Engineering controls	Not required for consumer use. For professional use, good general ventilation (3 to 5 air changes per hour) is recommended. Local exhaust ventilation is recommended if operating conditions produce dust.
Personal protective equipment	The need for personal protective equipment should be based on a workplace risk assessment for the particular use. We recommend chemical-resistant gloves (eg nitrile, 0.2 mm) and eye/face protection. Where more extensive contact may occur, wear protective clothing (eg overalls, apron). Wear respiratory protective equipment (acidic particulate mask) if exposure to dust is foreseen. PPE should be to British Standards. Consult manufacturers concerning breakthrough times.
Environmental exposure controls	Not available.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

(a)	Physical state	Powder
(b)	Colour	White
(c)	Odour	None
(d)	Melting/freezing point	The dihydrate loses water of crystallisation at 98 to 100 °C. The anhydrous form starts sublimation around 160 °C

(e)	Boiling point or initial boiling point and boiling range	Decomposes before boiling
(f)	Flammability	Not classified as flammable
(g)	Lower and upper explosion limit	Not available
(h)	Flash point	Not available
(i)	Auto-ignition temp.	> 400 °C
(j)	Decomposition temp.	Not available
(k)	pH	Ca. 1 at saturation
(l)	Kinematic viscosity	Not available
(m)	Solubility	108 g/L at 25 °C
(n)	Partition coeff. n-octanol/water (log value)	– 1.7
(o)	Vapour pressure	0.03 Pa at 25 °C (calculated)
(p)	Density or rel. density	Bulk density 0.8
(q)	Relative vapour density	Not available
(r)	Particle characteristics	Not available

9.2 Other information Not oxidising based on structure
Surface tension ca. 70.1 mN/m at 25 °C at 0.015 molar fraction

SECTION 10: Stability and reactivity

10.1 Reactivity Not available.

10.2 Chemical stability Stable.

10.3 Possibility of hazardous reactions Substance is acidic. Reaction with alkalis (e.g. amines), or dilution with water produces heat.

10.4 Conditions to avoid Avoid creating airborne dust and exposure to sources of ignition.

10.5 Incompatible materials Alkalis, oxidising agents.

10.6 Hazardous decomposition products Not available.

SECTION 11: Toxicological information

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

(a) Acute toxicity Based on available data, the classification criteria are met for Category 4, oral (harmful if swallowed) and dermal (harmful in contact with skin).

	The dermal classification is not supported by data in the REACH Registration, but is included in the mandatory classification list (CLP Annex VI). Oxalic acid: LD_{50} (oral, rat) 375 mg/kg; LD_{50} (dermal, rabbit) > 20 000 mg/kg.
(b) Skin corrosion/irritation	Based on available data, the classification criteria are not met. Oxalic acid: not irritating (rabbit test).
(c) Serious eye damage/irritation	Based on available data on the ingredients, the classification criteria are met for Category 1 (causes serious eye damage). Oxalic acid: highly irritating (rabbit test).
(d) Respiratory or skin sensitisation	Respiratory sensitisation: no expectation of respiratory sensitisation potential. Skin sensitisation: not sensitising (mouse local lymph node assay).
(e) Germ cell mutagenicity	Based on available data, the classification criteria are not met. In vitro gene mutation study in mammalian cells: no adverse effect observed (negative, method OECD 476).
(f) Carcinogenicity	Based on available data, the classification criteria are not met.
(g) Reproductive toxicity	Based on available data, the classification criteria are not met. Oxalic acid: no adverse effect observed on fertility (NOAEL 100 mg/kg bw/day in subchronic study in the rat) or development (NOAEL 450 mg/kg bw/day in subchronic study in the rabbit) in animal tests.
(h) STOT-single exposure	Based on available data, the classification criteria are not met.
(i) STOT-repeated exposure	Based on available data, the classification criteria are not met. Oxalic acid: no adverse effect observed in repeated-dose study (rat, 90 d, oral); NOAEL 63 mg/kg bw/day.
(j) Aspiration hazard	Based on available data, the classification criteria are not met.
11.2 Information on other hazards	Not identified as having endocrine disrupting properties relevant for humans.

SECTION 12: Ecological information

12.1 Toxicity	Based on available data, the classification criteria are not met. Oxalic acid: LC_{50} (fish, 48 h), 160 and 325 mg/L; EC_{50} (Daphnia magna, 48 h), 162 mg/L; E_rC_{50} (algae, 72 h), 19 mg/L.
12.2 Persistence and degradability	Oxalic acid: readily biodegradable. The biodegradation in seawater occurs at the same rate. Anaerobic biodegradation occurs rapidly.
12.3 Bioaccumulative potential	Not considered bioaccumulative.
12.4 Mobility in soil	Oxalic acid: log K_{oc} 0.8; expected to be mobile in soil. Rapid biodegradation is expected to mitigate potential transport to groundwater.

12.5	**Results of PBT and vPvB assessment**	Oxalic acid: not PBT or vPvB.
12.6	**Endocrine disrupting properties**	Not available.
12.7	**Other adverse effects**	The mixture is not classified as hazardous to the ozone layer.

SECTION 13: Disposal considerations

13.1	**Waste treatment methods**	Incineration is recommended for disposal of this product. Product is a water soluble and biodegradable, and disposal of small quantities of diluted product via the drains may be allowed. This product is not suitable for landfill. Dilution of the product with copious water or careful neutralization with weak alkali (eg calcium hydroxide slurry) (caution – will produce heat!) will reduce the hazard of the product. Disposal must be in accordance with current national and local regulations. Chemical residues generally count as special waste. General EU requirements are given in Directive 2008/98/EC.

SECTION 14: Transport information

14.1	**UN Number**	Not classified as dangerous goods for transport.
14.2	**UN proper shipping name**	Not applicable.
14.3	**Transport hazard class(es)**	Not applicable.
14.4	**Packing group**	Not applicable.
14.5	**Environmental hazards**	Not classified as marine pollutant/environmentally hazardous.
14.6	**Special precautions for user**	Not available.
14.7	**Maritime transport in bulk according to IMO instruments**	Not applicable. This product is not intended to be transported by sea in bulk containers.

SECTION 15: Regulatory information

15.1	**Safety, health and environmental regulations/legislation specific for the substance or mixture**	*UK*: Control of Substances Hazardous to Health Regulations 2002 (COSHH), as amended (also implementing 90/394/EEC on carcinogens at work). COSHH Essentials: Easy Steps to Control Chemicals; HSE Books 2003 (also available on the HSE website). Workplace Exposure Limits EH40/2005 (Fourth Edition, 2020); Health and Safety Executive.
15.2	**Chemical safety assessment**	Not available.

SECTION 16: Other information

Revisions	This SDS is the first version in EU format (Regulation 2020/878), using classification according to the CLP Regulation, or GB equivalent.
Abbreviations	ATE, acute toxicity estimate; DNEL, derived no-effect level; DMEL, derived minimum effect level; EC, effect concentration; IOELV, EU indicative occupational exposure limit value; LC, lethal concentration; LD, lethal dose; NOAEL, no-observed-adverse-effect level; OECD, Organisation for Economic Co-operation and Development; PBT, persistent, bioaccumulative, and toxic; PNEC, predicted no-effect concentration; STOT RE, specific target organ toxicity repeated exposure; STOT SE, specific target organ toxicity single exposure; TWA, time-weighted average; vPvB, very persistent, very bioaccumulative; WEL, UK workplace exposure limit.
References	Search for chemicals; available at the European Chemicals Agency website: http://echa.europa.eu/.
Basis of classification	The substance is classified from available information and in accordance with the entry in Annex VI of the CLP Regulation.
List of hazard statements	H302: Harmful if swallowed; H312: Harmful in contact with skin; H318: Causes serious eye damage.