Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 16.09.2015 Revision: 16.09.2015

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

· **1.1 Product identifier**

· **Trade name: OXALIC ACID**
· **CAS Number:**
144-62-7
· **EC number:**
205-634-3
· **Index number:**
607-006-00-8
· **Registration number** 01-2119534576-33
· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
Building and construction preparations; Leather tanning, dye, finishing, impregnation and care products; Washing and cleaning products; ph-regulators, flocculants,precipitants,neutralisation agents; Polymer preparations and compounds; Metal surface treatment products, including galvanic and electroplating products; Coatings and Paints, Fillers, Putties, Thinners; Hardening of Binders; in manufacture of basic metal; in pharmaceuticals,paints,chemicals; Precipitation of colbalt; Marmol polishing; Polishes and wax blends
· **Sector of Use**
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU5 Manufacture of textiles, leather, fur
SU6a Manufacture of wood and wood products
SU6b Manufacture of pulp, paper and paper products
SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
SU9 Manufacture of fine chemicals
SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU13 Manufacture of other non-metallic mineral products, e.g. plasters, cement
SU14 Manufacture of basic metals, including alloys
SU16 Manufacture of computer, electronic and optical products, electrical equipment
SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU18 Manufacture of furniture
SU19 Building and construction work
SU20 Health services
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU23 Electricity, steam, gas water supply and sewage treatment
SU 0: Other: SU 0-1: Other activity related to manufacturing of chemical products
SU 0: Other: SU 0-2: Other activity related to manufacture and services,
SU 0: Other: Profesional work
· **Product category**
PC9a Coatings and paints, thinners, paint removers
PC9b Fillers, putties, plasters, modelling clay
PC10: Building and construction preparations
PC14 Metal surface treatment products, including galvanic and electroplating products
PC15 Non-metal-surface treatment products
PC19 Intermediate
PC20 Products such as ph-regulators, flocculants, precipitants, neutralisation agents
PC21 Laboratory chemicals
PC23 Leather tanning, dye, finishing, impregnation and care products
PC25 Metal working fluids
PC29 Pharmaceuticals
PC31 Polishes and wax blends
PC32 Polymer preparations and compounds
PC34 Textile dyes, finishing and impregnating products; including bleaches and other processing aids
PC35 Washing and cleaning products (including solvent based products)
PC36 Water softeners
PC37 Water treatment chemicals
PC 0: Other: Building and construction preparations not covered elsewhere
· **Application of the substance / the mixture**
The substance has many industrial applications and is used in certain formulations intended for consumer use.
· **Uses advised against**
Any use involving aerosol formation or vapour release in excess of the assigned WEL where workers are exposed without suitable RPE.

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Any use carrying a risk of splashes to eyes/skin where workers are exposed without adequate PPE.
Processes involving the use of incompatible substances - refer to section 10.
Processes involving extreme heat use advised against.
The product is intended exclusively for industrial and professional use.

· **1.3 Details of the supplier of the safety data sheet**
· **Manufacturer/Supplier:**
PLATER CHEMICALS Ltd
Alrewas House, Main Street
Alrewas
Burton on Trent
DE13 7ED
Staffordshire
UK
Tel: (0044) 1283 792600
Fax: (0044) 1283 792041
e-mail: sales@platerchemicals.co.uk

· **Further information obtainable from:** Product safety department.
· **1.4 Emergency telephone number:** Tel: (0044) 1283 792600 (not 24 hours)

SECTION 2: Hazards identification

· **2.1 Classification of the substance or mixture**
· **Classification according to Regulation (EC) No 1272/2008**


GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.


GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.

· **2.2 Label elements**
· **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
· **Hazard pictograms** GHS05, GHS07
· **Signal word** Danger

· **Hazard-determining components of labelling:**
Oxalic acid
· **Hazard statements**
H302+H312 Harmful if swallowed or in contact with skin.
H318 Causes serious eye damage.
· **Precautionary statements**
P260 Do not breathe dust.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P270 Do not eat, drink or smoke when using this product.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P302+P352 IF ON SKIN: Wash with plenty of water.
· **Additional information:**
Keep out of the reach of children

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· **2.3 Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.1 Chemical characterisation: Substances**
· **CAS No. Description**
144-62-7 Oxalic acid
· **Identification number(s)**
· **EC number:** 205-634-3
· **Index number:** 607-006-00-8

SECTION 4: First aid measures

· **4.1 Description of first aid measures**
· **General information:**
Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
As little as 71mg/kg body weight may be fatal if ingested.
· **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:**
Immediately rinse with water.
If skin irritation continues, consult a doctor.
· **After eye contact:**
DO NOT DELAY!
Check for and remove any contact lenses.
Rinse opened eye for several minutes under running water. Then consult a doctor.
· **After swallowing:**
DO NOT DELAY!
Rinse out mouth and then drink plenty of water.
Do not induce vomiting; call for medical help immediately.
If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
· **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
· **Information for doctor:**
Treat symptomatically and supportively.
Antidote: intravenous administration of calcium gluconate or calcium chloride may be required if hypocalcemia or hypocalcemic tetany occur.
· **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

· **5.1 Extinguishing media**
· **Suitable extinguishing agents:**
CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
· **5.2 Special hazards arising from the substance or mixture**
Combustible. Gives off irritating or toxic fumes (or gases) in a fire.
Formic acid may be released in a fire situation.

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· **5.3 Advice for firefighters**
· **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
· **Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid formation of dust.
Ensure adequate ventilation
Wear protective equipment. Keep unprotected persons away.
· **6.2 Environmental precautions:**
Do not allow to penetrate the ground/soil.
Do not allow to enter sewers/ surface or ground water.
· **6.3 Methods and material for containment and cleaning up:**
Pick up mechanically.
Send for recovery or disposal in suitable receptacles.
· **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· **7.1 Precautions for safe handling**
Prevent formation of dust.
Ensure good ventilation/exhaustion at the workplace.
Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product.
Safety showers and eye wash facilities should be available at the work area.
· **Information about fire - and explosion protection:** Protect from heat.

· **7.2 Conditions for safe storage, including any incompatibilities**
· **Storage:**
· **Requirements to be met by storerooms and receptacles:**
Prevent any seepage into the ground.
Store in a cool location.
· **Information about storage in one common storage facility:**
Store away from foodstuffs.
Store away from oxidising agents.
· **Further information about storage conditions:**
Store in a bunded area.
Protect from humidity and water.
Store in cool, dry conditions in well sealed receptacles.
· **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

· **Additional information about design of technical facilities:** No further data; see item 7.

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· **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**	
144-62-7 Oxalic acid	
WEL	Short-term value: 2 mg/m³ Long-term value: 1 mg/m³

· **DNELs**

WORKERS
Acute / short-term exposure - local effects
Dermal DN(M)EL
- DNEL (Derived No Effect Level): 0.69 mg/cm²
Long-term exposure - systemic effects
Dermal DN(M)EL
- DNEL (Derived No Effect Level): 2.29 mg/kg bw/day
Inhalation DN(M)EL
- DNEL (Derived No Effect Level): 4.03 mg/m³

GENERAL POPULATION
Acute / short-term exposure - local effects
Dermal DN(M)EL
- DNEL (Derived No Effect Level): 0.35 mg/cm²
Long-term exposure - systemic effects
Dermal DN(M)EL
- DNEL (Derived No Effect Level): 1.14 mg/kg bw/day
Oral DN(M)EL
- DNEL (Derived No Effect Level): 1.14 mg/kg bw/day

· **PNECs**

PNEC aqua (freshwater): 0.1622 mg/L
PNEC aqua (marine water): 0.01622
PNEC aqua (intermittent releases): 1.622 mg/L
PNEC STP: 1550 mg/L

· **Additional information:** The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· **Personal protective equipment:**

Select PPE appropriate for the operations taking place taking into account the product properties.

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Do not eat, drink, smoke or sniff while working.
Storing food in the working area is prohibited.
Do not breath dust
A safe system of work must be formulated and followed to ensure safe working with this product. Relevant workers must receive suitable and sufficient training and supervision.
Take note of assigned Workplace Exposure Limits.
Ensure that eyewash stations and safety showers are close to the workstation location.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.
Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

· **Protection of hands:**

Protective gloves

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The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Nitrile, Neoprene, Natural rubber, Polyvinyl chloride, natural rubber: Permeation Breakthrought > 360).

· **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:** Safety glasses

· **Body protection:**
Impervious protective clothing
Body protection must be chosen depending on product properties, activity and possible exposure.

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Powder
Colour:	White
· **Odour:**	Odourless
· **pH-value (100 g/l) at 20 °C:**	1.0
· **Change in condition**	
Melting point/Melting range:	160 °C (sublimes)
Boiling point/Boiling range:	Undetermined.
· **Flash point:**	Not applicable.
· **Flammability (solid, gaseous):**	Product is not flammable.
· **Ignition temperature:**	>400 °C
· **Danger of explosion:**	Product does not present an explosion hazard.
· **Vapour pressure at 25 °C:**	<0.01 mmHg
· **Density:**	1.9 g/cm³
· **Solubility in / Miscibility with water at 25 °C:**	approx. 108 g/l
· **Partition coefficient (n-octanol/water) at 30 °C:**	-0.7 log POW
· **9.2 Other information**	Octanol/water partition coefficient as log Pow: -0.7 (estimated)

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **10.2 Chemical stability**

· **Thermal decomposition / conditions to be avoided:**
To avoid thermal decomposition do not overheat.
On contact with hot surfaces or flames this substance decomposes forming formic acid and carbon monoxide.

· **10.3 Possibility of hazardous reactions**
The solution in water is a medium strong acid.
Reacts violently with strong oxidants causing fire and explosion hazard.
Reacts with some silver compounds to form explosive silver oxalate.
Risk of explosion in contact with: chlorates; sodium chlorite/water; hypochlorites.
The substance can react dangerously with: strong bases; ammonia; furfuryl alcohol; heat; mercury.

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· **10.4 Conditions to avoid** No further relevant information available.
· **10.5 Incompatible materials:**
Strong oxidising agents.
Strong bases.
Substances specificaly listed in section 10.3 as incompatible.
· **10.6 Hazardous decomposition products:**
Carbon monoxide and carbon dioxide
Formic acid
· **Additional information:**
Combustible solid.
Soluble in water.
Sublimes in vacuum at temperatures above 100 °C.

SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**
· **Acute toxicity**
Harmful if swallowed or in contact with skin.

· **LD/LC50 values relevant for classification:**		
144-62-7 Oxalic acid		
Oral	LD50	375 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

· **Primary irritant effect:**
· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
· **Serious eye damage/irritation**
Causes serious eye damage.
· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
· **Subacute to chronic toxicity:**
Repeated or prolonged contact with skin may cause dermatitis. The substance may have effects on the kidneys, resulting in stones.
· **Additional toxicological information:**
ROUTES OF ENTRY: The substance can be absorbed into the body by inhalation of its solution aerosol/dust and by ingestion.

Inhalation of aerosol/dust may cause lung oedema. The substance may cause effects on the kidneys.
Excessive exposure may result in death. Medical observation is indicated.
· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
· **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
· **Carcinogenicity** Based on available data, the classification criteria are not met.
· **Reproductive toxicity** Based on available data, the classification criteria are not met.
· **STOT-single exposure** Based on available data, the classification criteria are not met.
· **STOT-repeated exposure** Based on available data, the classification criteria are not met.
· **Aspiration hazard** Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· **12.1 Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **12.2 Persistence and degradability** Easily biodegradable
· **12.3 Bioaccumulative potential** Product is not expected to bioaccumulate.
· **12.4 Mobility in soil** No further relevant information available.

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· **Additional ecological information:**
· **General notes:**
Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms. In the dilution of the use-level the pH-value is considerably increased, so that after the use of the product the aqueous waste, emptied into drains, is only low water-dangerous.
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
· **12.5 Results of PBT and vPvB assessment**
· **PBT:** Not applicable.
· **vPvB:** Not applicable.
· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**
· **Recommendation**
Recommended Hierarchy of Controls:
- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).
Must not be disposed together with household garbage. Do not allow product to reach sewage system.
Contact waste processors for recycling information.
Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.
· **European waste catalogue**
Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

· **Uncleaned packaging:**
· **Recommendation:**
Container remains hazardous when empty. Continue to observe all precautions.
Disposal must be made according to official regulations.
Containers, even those that are “empty,” may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

SECTION 14: Transport information

· **14.1 UN-Number** · **ADR, ADN, IMDG, IATA**	Void
· **14.2 UN proper shipping name** · **ADR, ADN, IMDG, IATA**	Void
· **14.3 Transport hazard class(es)** · **ADR, ADN, IMDG, IATA** · **Class**	Void
· **14.4 Packing group** · **ADR, IMDG, IATA**	Void
· **14.5 Environmental hazards:** · **Marine pollutant:**	No
· **14.6 Special precautions for user**	Not applicable.

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· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**	Not applicable.
· **Transport/Additional information:**	Not dangerous according to the above specifications. Not hazardous for transport provided that the substance is dry and cannot become wetted under all foreseeable circumstances.
· **UN "Model Regulation":**	Void

SECTION 15: Regulatory information

· **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
No further relevant information available.
· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing MSDS:** Product safety department.
· **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Acute Tox. 4: Acute toxicity, Hazard Category 4
Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1