

TECHNICAL DATA SHEET

Oxalic Acid, Dihydrate - Ethanedioic Acid Technical Grade

Reagent

CAS NUMBER

6153-56-6

ALLIANCE CODE

oxalic-acid-dihydrate-ethanedioic-acid

GENERATED

2026-08-31

REVISION

1.2

REVIEWED

2026-07-17 · Andre Taki

IDENTITY & COMPOSITION

PRODUCT NAME

Oxalic Acid, Dihydrate - Ethanedioic Acid
Technical Grade

ALLIANCE CODE

oxalic-acid-dihydrate-ethanedioic-acid

GRADE

Reagent

CONCENTRATION

—

CAS NUMBER

6153-56-6 [PubChem](#)

FORMULA

C2H6O6 [PubChem](#)

MOLECULAR WEIGHT

126.07 [PubChem](#)

PRODUCT TYPE

pure_substance

SPECIFICATIONS

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Assay [(COOH)2·2H2O]	98.5 - 101.5 %	100.0 %	—	Supplier specification
Calcium (Ca)	Max. 0.007 %	0.0015 %	—	Supplier specification

TEST	SPECIFICATION	TYPICAL	METHOD	SOURCE
Chloride (Cl)	Max. 0.003 %	0.0008 %	—	Supplier specification
Heavy metals (as Pb)	Max. 0.001 %	0.0002 %	—	Supplier specification
Iron (Fe)	Max. 0.004 %	0.0008 %	—	Supplier specification
Magnesium (Mg)	Max. 0.005 %	0.0006 %	—	Supplier specification
Nitrogen compounds	Max. 0.008 %	0.0015 %	—	Supplier specification
Sulphated ash	Max. 0.04 %	0.015 %	—	Supplier specification
Sulphate (SO ₄)	Max. 0.04 %	0.008 %	—	Supplier specification
Water insoluble matter	Max. 0.02 %	0.004 %	Gravimetric – 10 g in 100 mL water, filtered through tared sintered glass, dried at 105 C	Interpreted

Specification values are guaranteed limits. Typical values are representative of production lots and are not guaranteed. Lot-specific certificates of analysis ship with every order.

PHYSICAL & CHEMICAL PROPERTIES

PROPERTY	VALUE	SOURCE
Appearance	Snow white crystals	Supplier specification
Form	Solid	Published reference
Density	1.65 g/cm ³	Published reference
Melting Point	99 – 102 C (with decomposition)	Interpreted
Solubility (water)	Solubility in water, g/100ml at 20 °C: 13–14	Published reference

REGULATORY & TRANSPORT

DOT / 49 CFR

UN NUMBER

Not regulated **Adjudicated**

PACKING GROUP

Not regulated **Adjudicated**

HAZARD CLASS

Not regulated **Adjudicated**

PROPER SHIPPING NAME

Not regulated **Adjudicated**

GHS / OSHA HAZCOM 2012

SIGNAL WORD

Danger **Adjudicated**

H-CODES (HAZARD STATEMENTS)

H302, H312, H315, H318, H373 **Adjudicated**

P-CODES (PRECAUTIONARY STATEMENTS)

P260, P264, P270, P280, P301+P312, P302+P352, P305+P351+P338, P313, P314, P321, P330, P332+P313, P362, P501

Adjudicated

OCCUPATIONAL EXPOSURE LIMITS

OSHA PEL (29 CFR 1910.1000)

— **no canonical**

ACGIH TLV

— **no canonical**

NIOSH REL

— **no canonical**

NIOSH IDLH

— **no canonical**

Transport descriptions reflect 49 CFR 172.101 lookup at time of publication. Sourced data: ECHA CLP Annex VI for harmonised classifications, NIOSH Pocket Guide for REL/IDLH, OSHA Z-Tables for PEL. Always verify against the latest regulatory text before shipment-critical decisions.

APPLICATIONS

Technical grade material suitable for general industrial use [sciencelab.com](https://www.sciencelab.com)

Used in the dyeing industry as a mordant and as a cleaning agent [sciencelab.com](https://www.sciencelab.com)

Industrial use as a precipitating agent in rare earth mineral processing, bleaching agent for textiles and wood pulp, and rust remover in metal treatment

[wintersunchem.com](https://www.wintersunchem.com)

Marble polishing/grinding, waste water treatment, calcium removal from water, equipment cleaning and sterilizing, and photographic reducing / ink removal

[wintersunchem.com](https://www.wintersunchem.com)

Removal of food and rust stains from countertops, plumbing fixtures and fabrics [wintersunchem.com](https://www.wintersunchem.com)

Functions as a chelating agent, fixative, bleaching agent, analytical reagent and cleaner

[wintersunchem.com](https://www.wintersunchem.com)

Applications are drawn from published manufacturer and supplier documentation; each is sourced. Suitability for a specific use is the buyer's to confirm.

STORAGE & HANDLING

RECOMMENDED STORAGE

Storage: Room Temperature [mpbio.com](https://www.mpbio.com)

INCOMPATIBILITIES

Consult the SDS for material-specific incompatibilities.

Class-level guidance — not product-specific; the SDS controls.

For full hazard, PPE, and emergency response guidance, refer to the Safety Data Sheet (SDS) for this product. The SDS controls in all cases where guidance differs.

HANDLING PRECAUTIONS

Use standard chemical PPE — splash goggles, gloves, lab coat. Refer to SDS for hazard-specific PPE requirements.

Class-level guidance — not product-specific; the SDS controls.

SHELF LIFE

Consult Technical Services for product-specific shelf life

PACKAGING & LOGISTICS

SHIPPING DESCRIPTION (US DOT)

Not regulated for transport.

Confirm against shipping documents and carrier requirements before tender.

NMFC CLASS
70

REVISION HISTORY

Last reviewed 2026-07-17 by Andre Taki, DOT Hazmat Specialist.

VERSION	DATE	CHANGE	TRIGGER
1.2	2026-07-22	Canonical data updated: 5 fields changed via the provenance/adjudication pipeline. - unNumber · canonical change (coa.data_provenance / adjudication) - hazardClass · canonical change (coa.data_provenance / adjudication) - packingGroup · canonical change (coa.data_provenance / adjudication) - dotProperShippingName · canonical change (coa.data_provenance / adjudication) - ghsClassification · canonical change (coa.data_provenance / adjudication)	canonical_change

VERSION	DATE	CHANGE	TRIGGER
1.1	2026-07-17	Canonical data re-verified: 10 fields updated against independent vendor SDSs, CLP Annex VI, 49 CFR, and OSHA HazCom 2024 (GHS classification, hazard/precautionary codes, signal word, physical properties as applicable). - countryOfOrigin · canonical adjudication / reground (coa.data_provenance) - dotProperShippingName · canonical adjudication / reground (coa.data_provenance) - ghsClassification · canonical adjudication / reground (coa.data_provenance) - hazardClass · canonical adjudication / reground (coa.data_provenance) - hazard_h_codes · canonical adjudication / reground (coa.data_provenance) - hazard_p_codes · canonical adjudication / reground (coa.data_provenance) - hsCode · canonical adjudication / reground (coa.data_provenance) - packingGroup · canonical adjudication / reground (coa.data_provenance) - signalWord · canonical adjudication / reground (coa.data_provenance) - unNumber · canonical adjudication / reground (coa.data_provenance)	canonical_change
1.0	2026-05-20	Initial URL—first TDS published from canonical chemistry registry.	initial

This Technical Data Sheet is provided for technical reference. The Safety Data Sheet (SDS) controls in all cases where guidance differs. Values reflect Alliance Chemical canonical data at time of generation; subsequent revisions are recorded in the Revision History above.