BEBBINGTON INDUSTRIES SAFETY DATA SHEET

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

:// Substance

1.1. Product identifier

Product form

Substance name Oxalic Acid, Dihydrate

CAS No

£ 6153-56-6

Formula

C2H2O4,2H2O

Synonyms

dicarboxylic acid C2, dihydrate / dicarboxylic acid, dihydrate / ethandionic acid, dihydrate /

ethanedioic acid, dihydrate / oxiric acid, dihydrate

BIG no

10184

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

Use of the substance/mixture

Textile

Cleansing product: component

Leather/fur: dyeing

SUPPLIER:

BEBBINGTON INDUSTRIES

44 WRIGHT AVENUE

DARTMOUTH, NOVA SCOTIA, CANADA B3B 1G6

Email:

customerservice@bebbingtonindustries.com

EMERGENCY NUMBER:

CANUTEC 1 613 996 6666

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification Skin Corr. 1B H314 Eye Dam. 1 H318

2.2. Label elaments

GHS-US labelling

Hazard pictograms (GHS-US)



GHS05

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

H314 - Causes severe skin burns and eyedamage

Precautionary statements (GHS-US)

P260 - Do not breathe dust

P264 - Wash exposed skin thoroughly after handling

P280 - Wear protective gloves, protective clothing, eye protection, face protection P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting

P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated

clothing. Rinse skin with water/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 P310 - Immediately call a POISON CENTER/doctor/... P363 - Wash contaminated clothing before reuse

P405 - Store locked up

P501 - Dispose of contents/container to comply with local, state and federal regulations

2.3. Other hazards

Other hazards not contributing to the

: None

classification

2.4. Unknown acute toxicity (GHS US)

No data available

Oxalic Acid, Dihydrate Safety Data Sheet

3.1. Substances	OUTSTREET, TEACHER	WATER STREET, WINDOWS ARTH		STOP WINDOWS PROPRIES
Substance type	Mo	no-constituent		
Name		Product identifier	14	GHS-US classification
Oxalic Acid, Dihydrate (Main considuent)		(CAS No) 6153-56-6	100	Skin Corr. 1B, H314 Eye Dam. 1, H318
Full text of H-phrases: see section 16				
3.2. Mixture				
Not applicable				The production of the producti
SECTION 4: First aid measures	- 11-31	5.111125-11		
4.1. Description of first aid measure	s			
First-aid measures general	arr lab pre Ke	est: artificial respiration or oxyge oured breathing: half-seated. Vic event asphyxia/aspiration pneum	n. Cardiac arrest: perf stim in shock: on his b onia. Prevent cooling chological aid. Keep tl	te airway and respiration. Respirator form resuscitation. Victim conscious ack with legs slightly raised. Vomitin by covering the victim (no warming une victim calm, avoid physical strain.
First-aid measures after inhalation		move the victim into fresh air. Re	•	onsult a doctor/medical service.
First-aid measures after skin contact	:⊩Wa		·	ical) neutralizing agents. Take victim
First-aid measures after eye contact		nse immediately with plenty of wa nthalmologist if irritation persists.		tralizing agents. Take victim to an
First-aid measures after ingestion	vor		entre (www.big.be/ant of large quantities: im	lots of water to drink. Do not induce tigif.htm). Consult a doctor/medical mediately to hospital. Doctor: e is not recommended.
1.2. Most important symptoms and	effects, both	acute and delayed		
Symptoms/injuries after inhalation		TER INHALATION OF DUST: Dration of the nasal mucous memb		ng. Irritation of the respiratory tract. ting.
Symptoms/injuries after skin contact		gling/irritation of the skin. FOLLC n. Discolouration of the (finger)na		MAY APPEAR LATER: May stain th
Symptoms/injuries after eye contact	tiss	ue. Permanent eye damage.		tE/CONTACT: Corrosion of the eye
Symptoms/injuries after ingestion	Blo	TER ABSORPTION OF HIGH QI od in vomit. Blood in stool. Shoc creased renal function. Change i	k. FOLLOWING SYM	
Chronic symptoms	the	CONTINUOUS/REPEATED EX respiratory tract, Irritation of the h/inflammation.		: Decreased renal function. Irritation ranes. Coughing. Skin
4.3. Indication of any immediate me	dical attenti	on and special treatment needs	d all a company	
No additional information available	and the contract of the contract of			· · · · · · · · · · · · · · · · · · ·
SECTION 5: Firefighting measure	es			
.1. Extinguishing media			WHEN THE SHE SHE SHE THE	
Suitable extinguishing media	: Pre	ferably: water spray. Polyvalent	Control of the Contro	nt foam. ABC powder. Carbon dioxid
Insuitable extinguishing media	: No	unsultable extinguishing media k	nown.	
2. Special hazards arising from th	e substance	or mixture	ere en en en en en en	TO THE REPORT OF THE PARTY.
Fire hazard	: DIF	RECT FIRE HAZARD. Non-flamm DIRECT FIRE HAZARD, Heating		l state: increased fire hazard. zard. Reactions involving a fire haza
Explosion hazard	: DIF			air. INDIRECT EXPLOSION HAZA
Reactivity	: On	heating; release of corrosive gas	ses/vapours (formic a	osion hazards: see "Reactivity Haza cid). Upon combustion: CO and CO
- A	viol		of heat. Decomposes	eased) risk of fire/explosion. Reacts s on exposure to UV light: release o
.3. Advice for firefighters				
Precautionary measures fire			Exposure to fire/heat	consider evacuation. Exposure to
Firefighting instructions		-		ty. Dilute toxic gases with water spi
Protection during firefighting		at/fire exposure: compressed air/		•

Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment

Gloves. Face-shield. Protective clothing. Dust cloud production: compressed air/oxygen

apparatus. Dust cloud production: dust-tight suit.

Emergency procedures

Mark the danger area. Prevent dust cloud formation, e.g. by wetting. No naked flames, Wash contaminated clothes. In case of hazardous reactions; keep upwind. In case of reactivity hazard:

consider evacuation

Measures in case of dust release

In case of dust production: keep upwind. Dust production: have neighbourhood close doors and windows. Dust production: stop engines and no smoking. In case of dust production: no naked flames or sparks. Dust: spark-fexplosionproof appliances/lighting equipment.

6.1.2. For emergency responders

Protective equipment

: Equip cleanup crew with proper protection.

Emergency procedures

: Ventilate area. Stop release.

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment

: Contain released substance, pump into suitable containers, Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Knock down/dilute dust cloud with water spray. Powdered form: no compressed air for pumping over spills.

Methods for cleaning up

: Stop dust cloud by humidifying. Neutralize spill with quicklime or soda ash. Scoop solld spill into closing containers. See "Material-handling" for suitable container materials. Powdered: do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling

Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Use corrosionproof equipment. Thoroughly clean/dry the installation before use. Powdered form: no compressed air for pumping over. Avoid raising dust. Keep away from naked flames/heat. Finely divided: spark- and explosionproof appliances. Finely divided: keep away from ignition sources/sparks. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse. Do no eat, drink or smoke when using this product:

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

Proper grounding procedures to avoid static electricity should be followed.

Storage conditions

Protect from moisture. Keep container closed when not in use.

Incompatible products

Strong bases, metals. Acid chlorides.

Incompatible materials

Heat sources.

Storage temperature

≥ 20 °C

Heat and ignition sources

KEEP SUBSTANCE AWAY FROM: heat sources, ignition sources.

Prohibitions on mixed storage

KEEP SUBSTANCE AWAY FROM: combustible materials, oxidizing agents, (strong) acids.

(strong) bases, water/moisture.

Storage area

Store at ambient temperature. Store in a dry area. Store in a dark area. Keep container in a well-

ventilated place. Meet the legal requirements.

Special rules on packaging

SPECIAL REQUIREMENTS: closing, waterlight, dry, clean, opaque, correctly labelled, meet the

legal requirements. Secure fragile packagings in solid containers.

Packaging materials

SUITABLE MATERIAL; synthetic material, MATERIAL TO AVOID; iron.

7.3. Specific end use(s)

No additional information available

SECTION 8: Expo	sure controls/personal protection	
8.1. Control para	meters	
Oxalic Acid, Dihydra	te (6153-56-6)	
USA ACGIH	ACGIH TWA (mg/m²)	1 mg/m³
USA ACGIH	ACGIH STEL (mg/m³)	2 mg/m³

Safety Data Sheet

Oxalic Acid, Dihydrate (8153-56-6)
USA OSHA
OSHA PEL (TWA) (mg/m3)
1 mg/m³

8.2. Exposure controls

Appropriate engineering controls

: Emergency eye wash fountains and safety showers should be available in the immediate vicinity

of any potential exposure.

Personal protective equipment

: Dust formation: dust mask. Safety glasses. Corrosionproof clothing. Face shield.



Materials for protective clothing

GIVE EXCELLENT RESISTANCE: butyl rubber. natural rubber, neoprene, nitrile rubber, viton. PVC. GIVE GOOD RESISTANCE: leather, chlorinated polyethylene, polyethylene, neoprene/natural rubber, GIVE LESS RESISTANCE: styrene-butadiene rubber, nitrile

rubber/PVC. PVA.

Hand protection

Gloves.

Eye protection Skin and body protection Face shield. In case of dust production: protective goggles.

Protective clothing. In case of dust production: head/neck protection. In case of dust production:

dustproof clothing.

Respiratory protection

Dust production: dust mask with filter type P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state

: Solid

Appearance

: Crystalline solid. Powder. Grains.

Molecular mass

126.07 g/mol

Colour

Colourless or white.

Odour

: Odourless.

Odour threshold

: No data available

pH

8 4 0 (40 M)

pH solution

1.0 (13 %)

Relative evaporation rate (butylacefate=1)

13 %

Melting point

No data available

Freezing point

No data available

Boiling point

No data available

Flash point

No data available

Self ignition temperature

Decomposition temperature

No dala available

Flammability (solid, gas)

157 °C No data available

Vapour pressure

No data available

Vapour pressure at 50 °C

22 hPa

Relative vapour density at 20 °C

4.3

Relative density

1.6

Density

1653 kg/m³

Solubility

Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in glycerol.

Water: 14 g/100ml
Ethanol: 40 g/100ml
Log Pow : -1.74 (Estimated value

Log Pow : -1.74 (Estimated value)
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidising properties : No data available

9.2 Other information

Saturation concentration

: 0.0015 g/m³

No data available

Other properties

: Hygroscopic. May sublimate. Substance has acid reaction.

Safety Data Sheet

SECTION 10: Stability and reactivity

10.1. Reactivity

On heating: release of corrosive gases/vapours (formic acid), Upon combustion: CO and CO2 are formed. Reacts violently with (strong)oxidizers: (increased) risk of fire/explosion. Reacts violently with (some) bases: release of heat. Decomposes on exposure to UV light: release of corrosive gases/vapours (formic acid).

10.2. Chemical stability

Unstable on exposure to light. Hygroscopic.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

incompatible materials. High temperature. Moisture. Avoid dust formation.

10.5. Incompatible materials

Strong oxidizers. Strong bases, metals, Acid chlorides.

10.6. Hazardous decomposition products

Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity Not classified

Oxalic Acid, Dihydrate (17)6153-56-6	
LD50 oral rat	7500 mg/kg
LD50 dermal rat	20000 mg/kg
Skin corrosion/irritation	Causes severe skin burns and eye damage.
	pH: 1.0 (13 %)
Serious eye damage/irritation	: Causes serious eye damage
	pH: 1.0 (13 %)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
eproductive toxicity	Not classified
pecific target organ toxicity (single exposure)	Not classified
pecific target organ toxicity (repeated xposure)	Not classified
spiration hazard	Not classified
ymptoms/injuries after inhalation	AFTER INHALATION OF DUST: Dry/sore throat. Coughing, Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Nausea. Vomiting.
ymptoms/injuries after skin contact	: Tingling/irritation of the skin. FOLLOWING SYMPTOMS MAY APPEAR LATER: May stain the skin. Discolouration of the (finger)nails.
ymptoms/injuries after eye contact	Irritation of the eye tissue. ON CONTINUOUS EXPOSURE/CONTACT: Corrosion of the eye tissue. Permanent eye damage.
ymptoms/injuries after ingestion	: AFTER ABSORPTION OF HIGH QUANTITIES: Burns to the gastric/infestinal mucosa. Nausea Blood in vomit. Blood in stool. Shock. FOLLOWING SYMPTOMS MAY APPEAR LATER: Decreased renal function. Change in urine output. Change in urine composition.
	- · · · · · · · · · · · · · · · · · · ·

SECTION 12: Ecological information

Chronic symptoms

12.1. Toxicity	表面是我们的人们的人们的人们的人们的人们的人们的人们的人们的人们的人们的人们的人们的人们
Ecology - general	: Classification concerning the environment: not applicable,
Ecology - water	Mild water pollutant (surface water). Ground water pollutant, Harmful to fishes. Slightly harmful to
38	invertebrates (Daphnia) (EC50 (48h): 100 - 1000 mg/l). Slightly harmful to algae (EC50 (72h):
	100 - 1000 mg/l). Slightly harmful to aquatic organisms (EC50 (48h): 100 - 1000 mg/l), pH shift.

rash/inflammation.

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Decreased renal function. Irritation of

the respiratory tract. Irritation of the nasal mucous membranes. Coughing, Skin

Oxalic Acid, Dihydrate (6153-56-6)	
LC50 fishes 1	34.1 mg/l (96 h; Pimephales promelas; ANHYDROUS FORM)
LC50 other aquatic organisms 1	100 - 1000 mg/l (96 h; ANHYDROUS FORM)
EC50 Daphnia 1	137 mg/l (48 h; Daphnia magna; ANHYDROUS FORM)
LC50 fish 2	160 mg/l (48 h; Leuciscus idus; ANHYDROUS FORM)

Safety Data Sheet

Oxalic Acid, Dihydrate (6153-56-6)	
TLM fish 1	4000 mg/l (24 h; Lepomis macrochirus; ANHYDROUS FORM)
Threshold limit other aquatic organisms 1	100 - 1000,96 h; ANHYDROUS FORM
Threshold limit algae 1	790 mg/l (168 h; Scenedesmus quadricauda; ANHYDROUS FORM)
Threshold limit algae 2	80 mg/l (192 h; Microcystis aeruginosa; ANHYDROUS FORM)

12.2. Persistence and degradability

Oxalic Acid, Dihydrate (6153-56-6)	
Persistence and degradability	Readily biodegradable in water. Readily biodegradable in water in anaerobic conditions.
	Photolysis in water. Biodegradable in the soil. Photolysis in the air.

12.3. Bloaccumulative potential

Oxalic Acid, Dihydrate (6153-56-6)	
Log Pow	-1.74 (Estimated value)
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

No additional information available

12.5. Other advarae effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Remove waste in accordance with local and/or national regulations, Remove to an authorized

incinerator equipped with an afterburner and a flue gas scrubber with energy recovery. Additional information

: LWCA (the Netherlands); KGA category 03. Hazardous waste according to Directive

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transportinformation

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

: 3261

UN-No.(DOT) DOT NA no.

UN3261

14.2. UN proper shipping name

DOT Proper Shipping Name

25 Corrosive solid, acidic, organic, n.o.s.

Oxalic acid

Department of Transportation (DOT) Hazard

Classes

8 - Class 8 - Corrosive material 49 CFR 173 136

Hazard labels (DQT) 111 8 - Corrosive substances



DOT Symbols

G - Identifies PSN requiring a technical name

Packing group (DOT)

II - Medium Danger

Safety Data Sheet

DOT Special Provisions (49 CFR 172,102)

: IB8 - Authorized IBCs: Metal (11A, 11B, 11N, 21A, 21B, 21N, 31A, 31B and 31N); Rigid plastics (11H1, 11H2, 21H1, 21H2, 31H1 and 31H2); Composite (11HZ1, 11HZ2, 21HZ1, 21HZ2, 31HZ1 and 31HZ2); Fiberboard (11G); Wooden (11C, 11D and 11F); Flexible (13H1, 13H2, 13H3, 13H4, 13H5, 13L1, 13L2, 13L3, 13L4, 13M1 or 13M2).

IP2 - When IBCs other than metal or rigid plastics IBCs are used, they must be offered for transportation in a closed freight container or a closed transport vehicle.

IP4 - Flexible, fiberboard or wooden IBCs must be sift-proof and water-resistant or be fitted with a sift-proof and water-resistant liner.

T3 - 2.65 178.274(d)(2) Normal...... 178.275(d)(2)

TP33 - The portable tank instruction assigned for this substance applies for granular and powdered solids and for solids which are filled and discharged at temperatures above their melling point which are cooled and transported as a solid mass. Solid substances transported or offered for transport above their melting point are authorized for transportation in portable tanks conforming to the provisions of portable tank instruction T4 for solid substances of packing group III or T7 for solid substances of packing group II, unless a tank with more stringent requirements for minimum shell thickness, maximum allowable working pressure, pressure-relief devices or bottom outlets are assigned in which case the more stringent tank instruction and special provisions shall apply. Filling limits must be in accordance with portable tank special provision TP3. Solids meeting the definition of an elevated temperature material must be transported in accordance with the applicable requirements of this subchapter.

DOT Packaging Exceptions (49 CFR 173.xxx)

DOT Packaging Non Bulk (49 CFR 173.xxx) DOT Packaging Bulk (49 CFR 173.xxx)

± 212 240

14.3. Additional information

Other information

No supplementary information available.

State during transport (ADR-RID)

Rail and road transport: not subject to ADR-RID.

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location

B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.

Air transport

DOT Quantity Limitations Passenger aircraft/rail 🙏 15 kg

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 💠 50 kg

SECTION 15: Regulatory information

15.1. US Federal regulations

Oxalic Acid, Dihydrate (6153-56-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

Oxalic Acid, Dihydrate (6153-58-6)

Not listed on the Canadian DSL (Domestic Sustances List) inventory.

WHMIS Classification

Class E - Corrosive Material

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Dermal) H312

Acute Tox. 4 (Oral)

Full text of H-phrases; see section 16

Safety Data Sheet

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R21/22

Full text of R-phrases; see section 16

15.2.2. National regulations

Oxalic Acid, Dihydrate (6153-56-6)

Not listed on the Canadian Ingredient Disclosure List

15.3. US State regulations

Oxalic Acid, Dihydrate(6153-56-6)	
State or local regulations	U.S Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Full text of H-phrases: see section 16:

Eye Dam, 1	Serious eye damage/eye irritation, Category 1
Skin Carr, 1B	Skin corrosion/irritation, Category 1B
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NFPA health hazard

3 - Short exposure could cause serious temporary or

residual injury even though prompt medical attention was

given.

NFPA fire hazard NFPA reactivity

1 - Must be preheated before ignition can occur.

0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



HMIS III Rating

Health

3 Serious Hazard - Major Injury likely unless prompt action is taken and medical treatment is given

Flammability

1 Slight Hazard

Physical

:: 0 Minimal Hazard

Personal Protection

PREPARED BY BEBBINGTON INDUSTRIES JULY 2023

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. BEBBINGTON INDUSTRIES SHALL NOT BE HELD LIABLE FOR ANY DAMAGE OR INJURY RESULTING FROM HANDLING OR, OR FROM CONTACT WITH THE ABOVE PRODUCT. ALL PERSONS USING THIS PRODUCT SHOULD BE WHMIS TRAINED.