SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture	PILOT® D-300 CONCENTRATE
Registration number	-
Synonyms	None.
Product code	815000
Issue date	18-March-2015
Version number	05
Revision date	19-June-2018
Supersedes date	19-June-2018

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

Identified uses	Electrolytic bath additive
Uses advised against	None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name	Shepherd Europe S.A.R.L.
Address	275, rue de Lorraine 88500 Juvaincourt France
Telephone	+ 33 (0)3 29 37 88 22
e-mail	caroline.germain@shepherd.fr

Manufacturer

Company name	Pilot Chemical Company
Address	2744 East Kemper Road Sharonville, OH 45241
Telephone	(513)-326-0600 (8AM to 5PM Eastern) or 1-800-707-4568
e-mail	sdsinfo@pilotchemical.com

1.4. Emergency telephone number

CHEMTREC International:	1-703-527-3887
CHEMTREC Austria:	+(43)-13649237
CHEMTREC Belgium:	+(32)-28083237
CHEMTREC Bulgaria:	+(359)-32570104
CHEMTREC Croatia:	+(385)-17776920
CHEMTREC Czech Republic:	+(420)-228880039
CHEMTREC Denmark:	+(45)-69918573
CHEMTREC Finland:	+(358)-942419014
CHEMTREC France:	+(33)-975181407
CHEMTREC Germany:	+(44)-870-8200418
CHEMTREC Hungary:	+(36)-18088425
CHEMTREC Ireland:	+(353)-19014670
CHEMTREC Italy:	800-789-767
CHEMTREC Luxembourg:	+(352)-20202416
CHEMTREC Netherlands:	+(31)-858880596
CHEMTREC Norway:	+(47)-21930678

CHEMTREC Poland:	+(48)-223988029
CHEMTREC Portugal:	+(351)-308801773
CHEMTREC Slovakia:	+(421)-233057972
CHEMTREC Slovenia:	+(38)-618888016
CHEMTREC Spain:	900-868538
CHEMTREC Sweden:	+(46)-852503403
CHEMTREC Switzerland:	+(41)- 435082011
CHEMTREC UK:	+(44)-870-8200418 & 1 703-527-3887
CHEMTREC Ukraine:	+(380)-947101374

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Skin corrosion/irritation	Category 1B	H314 - Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Category 1	H318 - Causes serious eye damage.

Hazard summary Causes severe skin burns and eye damage.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid

Hazard pictograms

Signal word Danger

Hazard statements

H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Precautionary statements

Prevention

P260	Do not breathe vapour.
P264	Wash thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P330 + P331	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
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 CENTRE/doctor.
P363	Wash contaminated clothing before reuse.

Storage

P405	Store locked up.

Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

Supplemental label information 52,7 % of the mixture consists of component(s) of unknown acute oral toxicity. 52,7 % of the mixture consists of component(s) of unknown acute dermal toxicity. 52,7 % of the mixture consists of component(s) of unknown acute inhalation toxicity. 52,7 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 52,7 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid	50 - < 60	N/A 946-046-3	01-2120739691-49-XXXX	-	
Classification: Skin Corr. 1B;H314, Eye Dam. 1;H318					
Other components below reportable levels	40 - < 50				

Impurities

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	Index No.	Notes
Phthalic acid	0 - 2	88-99-3 201-873-2	-	-	
Sulfuric acid	0 - 2	7664-93-9 231-639-5	-	016-020-00-8	#

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).
M: M-factor
PBT: persistent, bioaccumulative and toxic substance.
vPvB: very persistent and very bioaccumulative substance.
All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments Occupational Exposure Limits for impurities are listed in Section 8. The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

Inhalation Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control centre immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

Eye contact Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control centre immediately.

Ingestion Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Not applicable, non-combustible.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire. Not applicable, non-combustible.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters None (non-combustible).

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapour. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders

Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

This product is miscible in water.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Industrial Formulation with Substance
Industrial Use in Metal Finishing Applications

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	Ceiling	0,2 mg/m3	Inhalable fraction.
	MAK	0,1 mg/m3	Inhalable fraction.

Belgium. Exposure Limit Values.

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,2 mg/m3	Mist.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	1 mg/m3	Aerosol, inhalable.

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Impurities	Type	Value
Sulfuric acid (CAS 7664-93-9)	MAC	0,05 mg/m3

Czech Republic. OELs. Government Decree 361

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	Ceiling	2 mg/m3	
	TWA	1 mg/m3	
		0,05 mg/m3	Mist.

Denmark. Exposure Limit Values

Impurities	Type	Value	Form
Phthalic acid (CAS 88-99-3)	TLV	3 mg/m3	
Sulfuric acid (CAS 7664-93-9)	TLV	0,05 mg/m3	mist, thoracic fraction

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Impurities	Type	Value	Form
Phthalic acid (CAS 88-99-3)	STEL	5 mg/m3	
	TWA	3 mg/m3	
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Finland. Workplace Exposure Limits

Impurities	Type	Value
Sulfuric acid (CAS 7664-93-9)	STEL	0,1 mg/m3
	TWA	0,05 mg/m3

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	VLE	3 mg/m3	
Regulatory status: Indicative limit (VL)			
	VME	0,05 mg/m3	Thoracic fraction.
Regulatory status: Regulatory indicative (VRI)			

Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,1 mg/m3	Inhalable fraction.

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	AGW	0,1 mg/m3	Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	mist, thoracic fraction

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Thoracic fraction.

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Ireland. Occupational Exposure Limits

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Italy. Occupational Exposure Limits

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Impurities	Type	Value
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Impurities	Type	Value	Form
Phthalic acid (CAS 88-99-3)	STEL	5 mg/m3	
	TWA	3 mg/m3	
Sulfuric acid (CAS 7664-93-9)	STEL	3 mg/m3	Mist.
	TWA	0,05 mg/m3	Mist.

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Netherlands. OELs (binding)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Thoracic fraction.

Norway. Administrative Norms for Contaminants in the Workplace

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TLV	0,1 mg/m3	Thoracic fraction.

Ordinance of the Minister of Labour and Social Policy on 6 June 2014 on the maximum permissible concentrations and intensities of harmful health factors in the work environment, Journal of Laws 2014, item 817

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Thoracic fraction.

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	STEL	3 mg/m3	Thoracic fraction.
	TWA	1 mg/m3	Thoracic fraction.

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Impurities	Type	Value
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Inhalable fraction.

Spain. Occupational Exposure Limits

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	mist, thoracic fraction

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Impurities	Type	Value
Phthalic acid (CAS 88-99-3)	STEL	5 mg/m3
	TWA	3 mg/m3
Sulfuric acid (CAS 7664-93-9)	STEL	0,2 mg/m3
	TWA	0,1 mg/m3

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	STEL	0,1 mg/m3	Inhalable dust.
	TWA	0,1 mg/m3	Inhalable dust.

UK. EH40 Workplace Exposure Limits (WELs)

Impurities	Type	Value
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Impurities	Type	Value	Form
Sulfuric acid (CAS 7664-93-9)	TWA	0,05 mg/m3	Mist.

Biological limit values No biological exposure limits noted for the ingredient(s).

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs)

General Population

Components	Value	Assessment factor	Notes
Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid (CAS N/A)			
Long-term, Systemic, Dermal	1,67 mg/kg		
Long-term, Systemic, Inhalation	2,90 mg/m3		
Long-term, Systemic, Oral	1,67 mg/kg		

Workers

Components	Value	Assessment factor	Notes
Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid (CAS N/A)			
Long-term, Systemic, Dermal	3,33 mg/kg		
Long-term, Systemic, Inhalation	11,80 mg/m3		

Predicted no effect concentrations (PNECs)

Components	Value	Assessment factor	Notes
Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid (CAS N/A)			
Freshwater	0,09 mg/l		
Marine water	0,09 mg/l		
Sediment (freshwater)	0,26 mg/kg		
Sediment (marine water)	0,03 mg/kg		
Soil	133,50 mg/kg		

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection	
- Hand protection	Use protective gloves made of: Nitrile. Rubber (natural, latex). Neoprene. Polyvinyl chloride (PVC). Butyl rubber.
- Other	Wear appropriate chemical resistant clothing.
Respiratory protection	In case of insufficient ventilation, wear suitable respiratory equipment.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Environmental manager must be informed of all major releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Cloudy.
Physical state	Liquid.
Form	Liquid.
Colour	Amber
Odour	Odourless.
Odour threshold	Not available.
pH	< 2
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Flash point	Cleveland open cup , flame extinguished; none to boiling
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	11 cP @ 25 deg C
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Density	10,80 lb/gal
Molecular weight	326
Specific gravity	1,29 @21°C

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.

10.6. Hazardous decomposition products No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information Occupational exposure to the substance or mixture may cause adverse effects.

Information on likely routes of exposure

Inhalation May cause irritation to the respiratory system.

Skin contact Causes severe skin burns.

Eye contact Causes serious eye damage.

Ingestion Causes digestive tract burns.

Symptoms Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

11.1. Information on toxicological effects

Acute toxicity Not known.

Toxicological data

Impurities	Species	Test Results
Phthalic acid (CAS 88-99-3)		
Acute		
Inhalation		
Aerosol		
LC50	Rat	> 5058 mg/m3, 4 Hours
Oral		
LD50	Mouse	> 5000 mg/kg
		2,53 g/kg
Sulfuric acid (CAS 7664-93-9)		
Acute		
Inhalation		
LC50	Rat	375 mg/m3, 4 h
Oral		
LD50	Rat	2140 mg/kg

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory sensitisation Not a respiratory sensitizer.

Skin sensitisation This product is not expected to cause skin sensitisation.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Carcinogenicity IARC has concluded that "occupational exposure to strong inorganic mists containing sulfuric acid is carcinogenic for humans (Group 1)". This product is not expected to be present in the form of inorganic mist during normal use.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Not listed.

Reproductive toxicity This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not an aspiration hazard.

Mixture versus substance information No information available.

Other information Not available.

SECTION 12: Ecological information

12.1. Toxicity Based on available data, the classification criteria are not met for hazardous to the aquatic environment.

Impurities		Species	Test Results
Phthalic acid (CAS 88-99-3)			
Aquatic			
Acute			
Algae	NOEC	Algae	> 100 mg/l, 72 h
Crustacea	EC50	Daphnia magna	> 640 mg/l, 48 h
Chronic			
Crustacea	NOEC	Daphnia magna	16 mg/l, 21 d Analogous material Phthalic anhydride
Fish	NOEC	Oncorhynchus mykiss	10 mg/l, 60 d Analogous material Phthalic anhydride
Sulfuric acid (CAS 7664-93-9)			
Aquatic			
Acute			
Algae	EC50	Algae	> 100 mg/l, 72 h
Crustacea	EC50	Daphnia	> 100 mg/l, 48 h
Fish	LC50	Bluegill (Lepomis macrochirus)	16 - 28 mg/l, 96 h
Chronic			
Crustacea	NOEC	Daphnia	0,15 mg/l, 35 d
Fish	NOEC	Fish	0,025 mg/l, 65 d

12.2. Persistence and degradability This product is expected to be readily biodegradable.

12.3. Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Reaction Mass of 4-sulphophthalic acid and 3-sulphophthalic acid	-2,09, @ 25°C
Phthalic acid	0,73

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

EU waste code The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Disposal methods/information Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Special precautions Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number UN3265

14.2. UN proper shipping name Corrosive liquid, acidic, organic, n.o.s. (4-SULFO-1,2-BENZENEDICARBOXYLIC ACID)

14.3. Transport hazard class(es)

Class 8

Subsidiary risk -

Label(s) 8

Hazard No. (ADR) 80

Tunnel restriction code E

14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN3265
14.2. UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (4-SULFO-1,2-BENZENEDICARBOXYLIC ACID)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3265
14.2. UN proper shipping name	Corrosive Liquid, Organic, N.o.s. (4-sulfo-1,2-Benzenedicarboxylic acid)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
14.4. Packing group	II
14.5. Environmental hazards	No.
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3265
14.2. UN proper shipping name	Corrosive liquid, acidic, organic, n.o.s. (4-sulfo-1,2-Benzenedicarboxylic acid)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	II
14.5. Environmental hazards	No.
ERG Code	8L
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed with restrictions.
Cargo aircraft only	Allowed with restrictions.

IMDG

14.1. UN number	UN3265
14.2. UN proper shipping name	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (4-SULFO-1,2-BENZENEDICARBOXYLIC ACID)
14.3. Transport hazard class(es)	
Class	8
Subsidiary risk	-
14.4. Packing group	II
14.5. Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not established.

ADN; ADR; IATA; IMDG; RID

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Not listed.

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Not listed.

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Sulfuric acid (CAS 7664-93-9)

Other regulations	This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended.
National regulations	Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended. Follow national regulation on the protection of workers from the risks of exposure to carcinogens and mutagens at work, in accordance with Directive 2004/37/EC.
15.2. Chemical safety assessment	Chemical Safety Assessment has been carried out. Exposure scenarios relevant for this material are annexed and distributed as seperate document to this eSDS.

SECTION 16: Other information

List of abbreviations	Not available.
References	Not available.
Information on evaluation method leading to the classification of mixture	The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15	H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.
Revision information	Composition / Information on Ingredients: Potential Compounds Formed SECTION 12: Ecological information: Persistence and degradability SECTION 12: Ecological information: 12,5. Results of PBT and vPvB assessment
Training information	Follow training instructions when handling this material.
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