Safety Data Sheet

According to Regulation (EC) No 1907/2006

Deosan HH+ AG514

Revision: 2019-12-02 **Version:** 01.0

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

1.1 Product identifier
Trade name: Deosan HH+ AG514

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses:
For industrial use only.
Animal care product, hoof care. Manual process
Uses advised against: Uses other than those identified are not recommended

1.3 Details of the supplier of the safety data sheet
Diversey local operating company

Contact details
Diversey local operating company

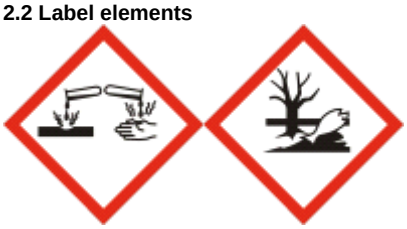
1.4 Emergency telephone number
Seek medical advice (show the label or safety data sheet where possible)

This International SDS is for information only. It does not meet all applicable regulatory requirements and does not replace the relevant statutory data sheet for your country.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
Skin Corr. 1B (H314)
Eye Dam. 1 (H318)
Aquatic Acute 1 (H400)
Aquatic Chronic 3 (H412)
Met. Corr. 1 (H290)

2.2 Label elements



Signal word: Danger.

Contains sulphuric acid (Sulfuric Acid), copper dinitrate (Copper Dinitrate)

Hazard statements:
H314 - Causes severe skin burns and eye damage.
H410 - Very toxic to aquatic life with long lasting effects.
H290 - May be corrosive to metals.

Precautionary statements:
P260 - Do not breathe vapours.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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 or physician.

2.3 Other hazards
No other hazards known. The product does not meet the criteria for PBT or vPvB in accordance with Regulation (EC) No 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ingredient(s)	EC number	CAS number	REACH number	Classification	Notes	Weight percent
sulphuric acid	231-639-5	7664-93-9	01-2119458838-20	Skin Corr. 1A (H314) Met. Corr. 1 (H290)		3-10
copper dinitrate	221-838-5	-	01-2119429044-48	Ox. Sol. 2 (H272) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Aquatic Acute 1 (H400) Aquatic Chronic 2 (H411)		3-10
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	[4]	78330-20-8	[4]	Acute Tox. 4 (H302) Eye Dam. 1 (H318)		3-10

Workplace exposure limit(s), if available, are listed in subsection 8.1.
[4] Exempted: polymer. See Article 2(9) of Regulation (EC) No 1907/2006.
For the full text of the H and EUH phrases mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General Information: If unconscious place in recovery position and seek medical advice. Provide fresh air. If breathing is irregular or stopped, administer artificial respiration. No mouth-to-mouth or mouth-to-nose resuscitation. Use Ambu bag or ventilator.

Inhalation: Get medical attention or advice if you feel unwell.

Skin contact: Wash skin with plenty of lukewarm, gently flowing water for at least 30 minutes. Take off immediately all contaminated clothing and wash it before reuse. Immediately call a POISON CENTRE, doctor or physician.

Eye contact: Hold eyelids apart and flush eyes with plenty of lukewarm water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTRE, doctor or physician.

Ingestion: Rinse mouth. Immediately drink 1 glass of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Keep at rest. Immediately call a POISON CENTRE, doctor or physician.

Self-protection of first aider: Consider personal protective equipment as indicated in subsection 8.2.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: No known effects or symptoms in normal use.

Skin contact: Causes severe burns.

Eye contact: Causes severe or permanent damage.

Ingestion: Ingestion will lead to a strong caustic effect on mouth and throat and to the danger of perforation of oesophagus and stomach.

4.3 Indication of any immediate medical attention and special treatment needed

No information available on clinical testing and medical monitoring. Specific toxicological information on substances, if available, can be found in section 11.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Carbon dioxide. Dry powder. Water spray jet. Fight larger fires with water spray jet or alcohol-resistant foam.

5.2 Special hazards arising from the substance or mixture

No special hazards known.

5.3 Advice for firefighters

As in any fire, wear self contained breathing apparatus and suitable protective clothing including gloves and eye/face protection.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Do not breathe dust or vapour. Wear suitable protective clothing, gloves and eye/face protection.

6.2 Environmental precautions

Do not allow to enter drainage system, surface or ground water. Do not allow to enter the ground/soil. Dilute with plenty of water. Inform responsible authorities in case undiluted product reaches drainage system, surface or ground water or the ground/soil.

6.3 Methods and material for containment and cleaning up

Ensure adequate ventilation. Dyke to collect large liquid spills. Use neutralising agent. Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Do not place spilled materials back into the original container. Collect in closed and suitable containers for disposal.

6.4 Reference to other sections

For personal protective equipment see subsection 8.2. For disposal considerations see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Measures to prevent fire and explosions:
No special precautions required.

Measures required to protect the environment:
For environmental exposure controls see subsection 8.2.

Advices on general occupational hygiene:
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not mix with other products unless adviced by Diversey. Wash face, hands and any exposed skin thoroughly after handling. Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Avoid contact with skin and eyes. Do not breathe vapours. Use only with adequate ventilation. See chapter 8.2, Exposure controls / Personal protection.

7.2 Conditions for safe storage, including any incompatibilities
Store in accordance with local and national regulations. Store in a closed container. Keep only in original packaging.
For conditions to avoid see subsection 10.4. For incompatible materials see subsection 10.5.

7.3 Specific end use(s)
No specific advice for end use available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Workplace exposure limits

Air limit values, if available:

Ingredient(s)	EU - Long term value(s)	EU - Short term value(s)	UK - Long term value(s)	UK - Short term value(s)
sulphuric acid	0.05 mg/m³		0.05 mg/m³ mist	0.15 mg/m³ mist

Biological limit values, if available:

Recommended monitoring procedures, if available:

Additional exposure limits under the conditions of use, if available:

DNEL/DMEL and PNEC values
Human exposure
DNEL oral exposure - Consumer (mg/kg bw)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphuric acid	-	-	-	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

DNEL dermal exposure - Worker

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sulphuric acid	No data available	-	No data available	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

DNEL dermal exposure - Consumer

Ingredient(s)	Short term - Local effects	Short term - Systemic effects (mg/kg bw)	Long term - Local effects	Long term - Systemic effects (mg/kg bw)
sulphuric acid	No data available	-	No data available	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Worker (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphuric acid	0.1	-	0.05	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

DNEL inhalatory exposure - Consumer (mg/m³)

Ingredient(s)	Short term - Local effects	Short term - Systemic effects	Long term - Local effects	Long term - Systemic effects
sulphuric acid	-	-	-	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

Environmental exposure
Environmental exposure - PNEC

Ingredient(s)	Surface water, fresh (mg/l)	Surface water, marine (mg/l)	Intermittent (mg/l)	Sewage treatment plant (mg/l)
sulphuric acid	0.0025	0.00025	-	8.8
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

Environmental exposure - PNEC, continued

Ingredient(s)	Sediment, freshwater (mg/kg)	Sediment, marine (mg/kg)	Soil (mg/kg)	Air (mg/m³)
sulphuric acid	0.002	0.002	-	-
copper dinitrate	No data available	No data available	No data available	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available	No data available	No data available	No data available

8.2 Exposure controls

The following information applies for the uses indicated in subsection 1.2 of the Safety Data Sheet.
If available, please refer to the product information sheet for application and handling instructions.
Normal use conditions are assumed for this section.

Recommended safety measures for handling the undiluted product:
Covering activities such as filling and transfer of product to application equipment, flasks or buckets

Appropriate engineering controls: If the product is diluted by using specific dosing systems with no risk of splashes or direct skin contact, the personal protection equipment as described in this section is not required.
Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment
Eye / face protection: Safety glasses or goggles (EN 166). The use of a full-face shield or other full-face protection is strongly recommended when handling open containers or if splashes may occur.
Hand protection: Chemical-resistant protective gloves (EN 374). Verify instructions regarding permeability and breakthrough time, as provided by the gloves supplier. Consider specific local use conditions, such as risk of splashes, cuts, contact time and temperature.
Suggested gloves for prolonged contact: Material: butyl rubber Penetration time: ≥ 480 min Material thickness: ≥ 0.7 mm
Suggested gloves for protection against splashes: Material: nitrile rubber Penetration time: ≥ 30 min Material thickness: ≥ 0.4 mm
In consultation with the supplier of protective gloves a different type providing similar protection may be chosen.
Body protection: Wear chemical-resistant clothing and boots in case direct dermal exposure and/or splashes may occur (EN 14605).
Respiratory protection: Respiratory protection is not normally required. However, inhalation of vapour, spray, gas or aerosols should be avoided.

Environmental exposure controls: Should not reach sewage water or drainage ditch undiluted or unneutralised.

Recommended safety measures for handling the diluted product:

Recommended maximum concentration (%): 3

Appropriate engineering controls: No special requirements under normal use conditions.
Appropriate organisational controls: No special requirements under normal use conditions.

Personal protective equipment
Eye / face protection: No special requirements under normal use conditions.
Hand protection: No special requirements under normal use conditions.
Body protection: No special requirements under normal use conditions.
Respiratory protection: No special requirements under normal use conditions.

Environmental exposure controls: No special requirements under normal use conditions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties
Information in this section refers to the product, unless it is specifically stated that substance data is listed

	Method / remark
Physical State: Liquid	
Colour: Clear Medium Blue	
Odour: Product specific To Match Standard (TMS)	
Odour threshold: Not applicable	
pH < 2 (neat)	ISO 4316
Dilution pH: < 2 (3 %)	ISO 4316
Melting point/freezing point (°C): Not determined	Not relevant to classification of this product
Initial boiling point and boiling range (°C): 100	

Substance data, boiling point

Ingredient(s)	Value (°C)	Method	Atmospheric pressure (hPa)
sulphuric acid	310-335	Method not given	
copper dinitrate	No data available		
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available		

Method / remark

Flammability (liquid): Not flammable.
Flash point (°C): > 100 °C
Sustained combustion: Not applicable.
(UN Manual of Tests and Criteria, section 32, L.2)
Evaporation rate: Not determined — Not relevant to classification of this product
Flammability (solid, gas): Not applicable to liquids
Upper/lower flammability limit (%): 999

Substance data, flammability or explosive limits, if available:

Method / remark

Vapour pressure: Not determined — See substance data

Substance data, vapour pressure

Ingredient(s)	Value (Pa)	Method	Temperature (°C)
sulphuric acid	10	Method not given	20
copper dinitrate	No data available		
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available		

Method / remark

Vapour density: Not determined — Not relevant to classification of this product
Relative density: ≈ 1.08 (20 °C) — OECD 109 (EU A.3)
Solubility in / Miscibility with Water: Fully miscible

Substance data, solubility in water

Ingredient(s)	Value (g/l)	Method	Temperature (°C)
sulphuric acid	No data available		
copper dinitrate	No data available		
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available		

Substance data, partition coefficient n-octanol/water (log Kow): see subsection 12.3

Method / remark

Autoignition temperature: Not determined
Decomposition temperature: Not applicable.
Viscosity: ≈ 30 mPa.s (20 °C) — DM-006 Viscosity - Additional
Explosive properties: Not explosive.
Oxidising properties: Not oxidising.

9.2 Other information
Surface tension (N/m): Not determined — Not relevant to classification of this product
Corrosion to metals: Corrosive — Weight of evidence

Substance data, dissociation constant, if available:

Ingredient(s)	Value	Method	Temperature (°C)
sulphuric acid	1.92 (pKa)	Method not given	

SECTION 10: Stability and reactivity

10.1 Reactivity
No reactivity hazards known under normal storage and use conditions.

10.2 Chemical stability
Stable under normal storage and use conditions.

10.3 Possibility of hazardous reactions
No hazardous reactions known under normal storage and use conditions.

10.4 Conditions to avoid
None known under normal storage and use conditions.

10.5 Incompatible materials
Reacts with alkali and metals. Keep away from products containing chlorine-based bleaching agents or sulphites.

10.6 Hazardous decomposition products
None known under normal storage and use conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Mixture data:.

Relevant calculated ATE(s):
ATE - Oral (mg/kg): >2000

Substance data, where relevant and available, are listed below:.

Acute toxicity
Acute oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sulphuric acid	LD_{50}	2140	Rat	OECD 401 (EU B.1)	
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	LD_{50}	> 300-2000	Rat	Method not given	

Acute dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg)	Species	Method	Exposure time (h)
sulphuric acid		No data available			
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Acute inhalative toxicity

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphuric acid	LC_{50}	0.375 (mist)	Rat	OECD 403 (EU B.2)	
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Irritation and corrosivity
Skin irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphuric acid	Corrosive	Rabbit	Method not given	
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	Not irritant	Rabbit	Method not given	

Eye irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphuric acid	Corrosive	Rabbit	Method not given	
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	Severe damage	Rabbit	Method not given	

Respiratory tract irritation and corrosivity

Ingredient(s)	Result	Species	Method	Exposure time
sulphuric acid	No data available			
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available			

Sensitisation
Sensitisation by skin contact

Ingredient(s)	Result	Species	Method	Exposure time (h)
sulphuric acid	Not sensitising			
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available			

Sensitisation by inhalation

Ingredient(s)	Result	Species	Method	Exposure time
sulphuric acid	No data available			
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available			

CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Mutagenicity

Ingredient(s)	Result (in-vitro)	Method (in-vitro)	Result (in-vivo)	Method (in-vivo)
sulphuric acid	No data available		No data available	
copper dinitrate	No data available		No data available	
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available		No data available	

Carcinogenicity

Ingredient(s)	Effect
sulphuric acid	No evidence for carcinogenicity, negative test results
copper dinitrate	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available

Toxicity for reproduction

Ingredient(s)	Endpoint	Specific effect	Value (mg/kg bw/d)	Species	Method	Exposure time	Remarks and other effects reported
sulphuric acid			No data available				
copper dinitrate			No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)			No data available				

Repeated dose toxicity

Sub-acute or sub-chronic oral toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sulphuric acid	NOAEL	150	Rat	Method not given	60	
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Sub-chronic dermal toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sulphuric acid		No data available				
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Sub-chronic inhalation toxicity

Ingredient(s)	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time (days)	Specific effects and organs affected
sulphuric acid	TCL_0	3	Human	Method not given		
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Chronic toxicity

Ingredient(s)	Exposure route	Endpoint	Value (mg/kg bw/d)	Species	Method	Exposure time	Specific effects and organs affected	Remark
sulphuric acid			No data available					
copper dinitrate			No data available					
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)			No data available					

STOT-single exposure

Ingredient(s)	Affected organ(s)
sulphuric acid	No data available
copper dinitrate	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available

STOT-repeated exposure

Ingredient(s)	Affected organ(s)
sulphuric acid	No data available
copper dinitrate	No data available
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available

Aspiration hazard

Substances with an aspiration hazard (H304), if any, are listed in section 3.

Potential adverse health effects and symptoms

Effects and symptoms related to the product, if any, are listed in subsection 4.2.

SECTION 12: Ecological information

12.1 Toxicity

No data is available on the mixture.

Substance data, where relevant and available, are listed below:

Aquatic short-term toxicity

Aquatic short-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphuric acid	LC_{50}	16 - 28	*Lepomis macrochirus*	Method not given	96
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Aquatic short-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphuric acid	EC_{50}	29	*Daphnia magna Straus*	Method not given	24
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Aquatic short-term toxicity - algae

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (h)
sulphuric acid	EC_{50}	> 100	*Desmodesmus subspicatus*	Method not given	72
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Aquatic short-term toxicity - marine species

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time (days)
sulphuric acid		No data available			-
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Impact on sewage plants - toxicity to bacteria

Ingredient(s)	Endpoint	Value (mg/l)	Inoculum	Method	Exposure time
sulphuric acid	EC_{50}	58	*Activated sludge*	Method not given	120 hour(s)
copper dinitrate		No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available			

Aquatic long-term toxicity

Aquatic long-term toxicity - fish

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphuric acid	NOEC	0.31	*Salvelinus fontinalis*	Method not given		
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Aquatic long-term toxicity - crustacea

Ingredient(s)	Endpoint	Value (mg/l)	Species	Method	Exposure time	Effects observed
sulphuric acid	NOEC	0.15	*Daphnia magna*	Method not given		
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Aquatic toxicity to other aquatic benthic organisms, including sediment-dwelling organisms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw sediment)	Species	Method	Exposure time (days)	Effects observed

sulphuric acid		No data available			-	
copper dinitrate		No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)		No data available				

Terrestrial toxicity

Terrestrial toxicity - soil invertebrates, including earthworms, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid		No data available			-	

Terrestrial toxicity - plants, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid		No data available			-	

Terrestrial toxicity - birds, if available:

Ingredient(s)	Endpoint	Value	Species	Method	Exposure time (days)	Effects observed
sulphuric acid		No data available			-	

Terrestrial toxicity - beneficial insects, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid		No data available			-	

Terrestrial toxicity - soil bacteria, if available:

Ingredient(s)	Endpoint	Value (mg/kg dw soil)	Species	Method	Exposure time (days)	Effects observed
sulphuric acid		No data available			-	

12.2 Persistence and degradability

Abiotic degradation

Abiotic degradation - photodegradation in air, if available:

Abiotic degradation - hydrolysis, if available:

Abiotic degradation - other processes, if available:

Biodegradation

Ready biodegradability - aerobic conditions

Ingredient(s)	Inoculum	Analytical method	DT_{50}	Method	Evaluation
sulphuric acid					Not applicable (inorganic substance)
copper dinitrate					Not applicable (inorganic substance)
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)					Readily biodegradable

Ready biodegradability - anaerobic and marine conditions, if available:

Degradation in relevant environmental compartments, if available:

12.3 Bioaccumulative potential

Partition coefficient n-octanol/water (log Kow)

Ingredient(s)	Value	Method	Evaluation	Remark
sulphuric acid	No data available		No bioaccumulation expected	
copper dinitrate	No data available			
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available			

Bioconcentration factor (BCF)

Ingredient(s)	Value	Species	Method	Evaluation	Remark
sulphuric acid	No data available				
copper dinitrate	No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available				

12.4 Mobility in soil

Adsorption/Desorption to soil or sediment

Ingredient(s)	Adsorption coefficient Log Koc	Desorption coefficient Log Koc(des)	Method	Soil/sediment type	Evaluation
sulphuric acid	No data available				Low potential for adsorption

					to soil
copper dinitrate	No data available				
Alcohols, C9-11-iso-, C10-rich, ethoxylated (>5-10EO)	No data available				

12.5 Results of PBT and vPvB assessment
Substances that fulfill the criteria for PBT/vPvB, if any, are listed in section 3.

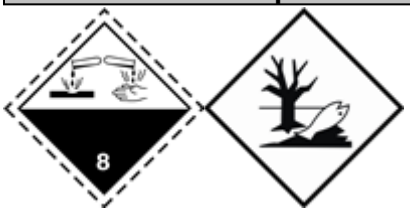
12.5 Other adverse effects
12.6 Other adverse effects
No other adverse effects known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Waste from residues / unused products: The concentrated contents or contaminated packaging should be disposed of by a certified handler or according to the site permit. Release of waste to sewers is discouraged. The cleaned packaging material is suitable for energy recovery or recycling in line with local legislation.
European Waste Catalogue: 20 01 14* - acids.

Empty packaging
Recommendation: Dispose of observing national or local regulations.
Suitable cleaning agents: Water, if necessary with cleaning agent.

SECTION 14: Transport information



Land transport (ADR/RID), Sea transport (IMDG), Air transport (ICAO-TI / IATA-DGR)
14.1 UN number: 3264
14.2 UN proper shipping name:
Corrosive liquid, acidic, inorganic, n.o.s. (sulphuric acid , copper dinitrate)
14.3 Transport hazard class(es):
Transport hazard class (and subsidiary risks): 8
14.4 Packing group: II
14.5 Environmental hazards:
Environmentally hazardous: Yes
Marine pollutant: Yes
14.6 Special precautions for user: None known.
14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code: The product is not transported in bulk tankers.

Other relevant information:
ADR
Classification code: C1
Tunnel restriction code: E
Hazard identification number: 80
IMO/IMDG
EmS: F-A, S-B

The product has been classified, labelled and packaged in accordance with the requirements of ADR and the provisions of the IMDG Code
Transport regulations include special provisions for certain classes of dangerous goods packed in limited quantities.

SECTION 15: Regulatory information

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

EU regulations:
• Regulation (EC) No. 1907/2006 - REACH
• Regulation (EC) No 1272/2008 - CLP

Authorisations or restrictions (Regulation (EC) No 1907/2006, Title VII respectively Title VIII): Not applicable.

UFI: TQ23-91V1-C00X-92NU

15.2 Chemical safety assessment
A chemical safety assessment has not been carried out on the mixture

SECTION 16: Other information

The information in this document is based on our best present knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally binding contract

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Classification procedure
The classification of the mixture is in general based on calculation methods using substance data, as required by Regulation (EC) No 1272/2008. If for certain classifications data on the mixture is available or for example bridging principles or weight of evidence can be used for classification, this will be indicated in the relevant sections of the Safety Data Sheet. See section 9 for physical chemical properties, section 11 for toxicological information and section 12 for ecological information.

Full text of the H and EUH phrases mentioned in section 3:
- H272 - May intensify fire; oxidiser.
- H290 - May be corrosive to metals.
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H400 - Very toxic to aquatic life.
- H411 - Toxic to aquatic life with long lasting effects.

Abbreviations and acronyms:
- AISE - The international Association for Soaps, Detergents and Maintenance Products
- DNEL - Derived No Effect Limit
- EUH - CLP Specific hazard statement
- PBT - Persistent, Bioaccumulative and Toxic
- PNEC - Predicted No Effect Concentration
- REACH number - REACH registration number, without supplier specific part
- vPvB - very Persistent and very Bioaccumulative
- ATE - Acute Toxicity Estimate
- LD50 - Lethal Dose, 50% / Median Lethal dose
- LC50 - Lethal Concentration, 50% / Median Lethal Concentration
- EC50 - effective concentration, 50%
- NOEL - No observed effect level
- NOAEL - No observed adverse effect level
- OECD - Organization for Economic Cooperation and Development

End of Safety Data Sheet