SAFETY DATA SHEET

Based upon Regulation (EC) No 1907/2006, as amended by Regulation (EU) No 2015/830

CA REMOVER HD

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

1.1. Product identifier

Product name : CA REMOVER HD
Registration number REACH : Not applicable (mixture)
Product type REACH : Mixture

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

1.2.1 Relevant identified uses

Detergent according to Regulation (EC) No 648/2004

1.2.2 Uses advised against

No uses advised against known

1.3. Details of the supplier of the safety data sheet

Supplier of the safety data sheet

Novatio*
Industrielaan 5B
B-2250 Olen
☎ +32 14 25 76 40
🖷 +32 14 22 02 66
info@novatio.be
*NOVATIO is a registered trademark of Novatech International N.V.

Manufacturer of the product

Novatech International N.V.
Industrielaan 5B
B-2250 Olen
☎ +32 14 85 97 37
🖷 +32 14 85 97 38
info@tec7.be

1.4. Emergency telephone number

24h/24h (Telephone advice: English, French, German, Dutch):
+32 14 58 45 45 (BIG)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classified as dangerous according to the criteria of Regulation (EC) No 1272/2008

Class	Category	Hazard statements
Met. Corr.	category 1	H290: May be corrosive to metals.
Skin Corr.	category 1A	H314: Causes severe skin burns and eye damage.

2.2. Label elements

Contains: nitric acid.

Signal word Danger

H-statements

H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.

P-statements

P280	Wear protective gloves, protective clothing and eye protection/face protection.
P260	Do not breathe vapours/mist.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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 CENTER/doctor.

Supplemental information

EUH071 Corrosive to the respiratory tract.

2.3. Other hazards

No other hazards known

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name REACH Registration No	CAS No EC No	Conc. (C)	Classification according to CLP	Note	Remark
nitric acid 01-2119487297-23	7697-37-2 231-714-2	C>30 %	Ox. Liq. 2; H272 Met. Corr. 1; H290 Skin Corr. 1A; H314	(1)(2)(6)(8)(10)	Constituent
copper sulphate, pentahydrate 01-2119520566-40	7758-99-8 231-847-6	C<5 %	Acute Tox. 4; H302 Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	(1)(2)(9)	Constituent

(1) For H-statements in full: see heading 16
(2) Substance with a Community workplace exposure limit
(6) Enumerated in Annex VI of Regulation (EC) No. 1272/2008 but the classification has been adapted after evaluation of available test data
(8) Specific concentration limits, see heading 16
(9) M-factor, see heading 16
(10) Subject to restrictions of Annex XVII of Regulation (EC) No. 1907/2006

SECTION 4: First aid measures

4.1. Description of first aid measures

General:

Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

After inhalation:

Remove the victim into fresh air. Immediately consult a doctor/medical service.

After skin contact:

Wash immediately with lots of water (15 minutes)/shower. Do not apply (chemical) neutralizing agents. Remove clothing while washing. Do not remove clothing if it sticks to the skin. Cover wounds with sterile bandage. Consult a doctor/medical service. If burned surface > 10%: take victim to hospital.

After eye contact:

Rinse immediately with plenty of water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist.

After ingestion:

Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Immediately consult a doctor/medical service.

4.2. Most important symptoms and effects, both acute and delayed

4.2.1 Acute symptoms

After inhalation:

Respiratory difficulties. Vomiting. Corrosion of the upper respiratory tract.

After skin contact:

Caustic burns/corrosion of the skin.

After eye contact:

Corrosion of the eye tissue.

After ingestion:

Possible esophageal perforation. Burns to the gastric/intestinal mucosa.

4.2.2 Delayed symptoms

No effects known.

4.3. Indication of any immediate medical attention and special treatment needed

If applicable and available it will be listed below.

SECTION 5: Firefighting measures

5.1. Extinguishing media

5.1.1 Suitable extinguishing media:

Adapt extinguishing media to the environment for surrounding fires.

5.1.2 Unsuitable extinguishing media:

Not applicable.

5.2. Special hazards arising from the substance or mixture

On burning: release of toxic and corrosive gases/vapours (nitrous vapours).

5.3. Advice for firefighters

5.3.1 Instructions:

If exposed to fire cool the closed containers by spraying with water. Dilute toxic gases with water spray. Take account of toxic/corrosive precipitation water. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it. Heat exposure: dilute toxic gas/vapour with water spray. Take account of toxic/corrosive precipitation water.

5.3.2 Special protective equipment for fire-fighters:

Gloves. Face-shield. Corrosion-proof suit. Heat/fire exposure: compressed air/oxygen apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No naked flames. Corrosion-proof appliances.

6.1.1 Protective equipment for non-emergency personnel

See heading 8.2

6.1.2 Protective equipment for emergency responders

Gloves. Face-shield. Corrosion-proof suit.

Suitable protective clothing

See heading 8.2

6.2. Environmental precautions

Contain released product. Dam up the liquid spill. Prevent soil and water pollution. Prevent spreading in sewers.

6.3. Methods and material for containment and cleaning up

Take up liquid spill into absorbent material. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Small quantities of liquid spill: dilute with an excess of water or neutralize. Neutralized substance: wash down with an excess of water. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

See heading 13.

SECTION 7: Handling and storage

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

7.1. Precautions for safe handling

Keep away from naked flames/heat. Observe very strict hygiene - avoid contact. Keep container tightly closed. Remove contaminated clothing immediately. Use corrosionproof equipment. Do not discharge the waste into the drain.

7.2. Conditions for safe storage, including any incompatibilities

7.2.1 Safe storage requirements:

Storage temperature: < 50 °C. Protect against frost. Keep container in a well-ventilated place. Keep locked up. Unauthorized persons are not admitted. Keep container tightly closed. Meet the legal requirements.

7.2.2 Keep away from:

Heat sources, oxidizing agents, reducing agents, (strong) acids, (strong) bases, metals.

7.2.3 Suitable packaging material:

No data available

7.2.4 Non suitable packaging material:

Metal.

7.3. Specific end use(s)

If applicable and available, exposure scenarios are attached in annex. See information supplied by the manufacturer.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 Occupational exposure

a) Occupational exposure limit values

If limit values are applicable and available these will be listed below.

EU

Nitric acid	Short time value (Indicative occupational exposure limit value)	1 ppm
	Short time value (Indicative occupational exposure limit value)	2.6 mg/m³

Belgium

Acide nitrique	Short time value	1 ppm
	Short time value	2.6 mg/m³

The Netherlands

Koper en anorganische koperverbindingen (inhaleerbaar)	Time-weighted average exposure limit 8 h (Public occupational exposure limit value)	0.1 mg/m³
Salpeterzuur	Short time value (Public occupational exposure limit value)	0.5 ppm
	Short time value (Public occupational exposure limit value)	1.3 mg/m³

France

Acide nitrique	Short time value (VRI: Valeur réglementaire indicative)	1 ppm
	Short time value (VRI: Valeur réglementaire indicative)	2.6 mg/m³

Germany

Salpetersäure	Time-weighted average exposure limit 8 h (TRGS 900)	1 ppm
	Time-weighted average exposure limit 8 h (TRGS 900)	2.6 mg/m³

UK

Nitric acid	Short time value (Workplace exposure limit (EH40/2005))	1 ppm
	Short time value (Workplace exposure limit (EH40/2005))	2.6 mg/m³

USA (TLV-ACGIH)

Nitric acid	Time-weighted average exposure limit 8 h (TLV - Adopted Value)	2 ppm
	Short time value (TLV - Adopted Value)	4 ppm

b) National biological limit values

If limit values are applicable and available these will be listed below.

8.1.2 Sampling methods

Product name	Test	Number
Copper Dust and fume	NIOSH	7029
Copper	OSHA	ID 121
Copper	OSHA	ID 125G
Nitric Acid (Acids, inorganic)	NIOSH	7903
Nitric Acid (VOLATILE ACIDS)	NIOSH	7907
Nitric Acid	OSHA	ID 165SG
Sulfites, & Sulfates	NIOSH	6004

8.1.3 Applicable limit values when using the substance or mixture as intended

If limit values are applicable and available these will be listed below.

8.1.4 DNEL/PNEC values

DNEL/DMEL - Workers

nitric acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	1.3 mg/m³	
	Acute local effects inhalation	2.6 mg/m³	

DNEL/DMEL - General population

nitric acid

Effect level (DNEL/DMEL)	Type	Value	Remark
DNEL	Long-term local effects inhalation	0.65 mg/m³	
	Acute local effects inhalation	1.3 mg/m³	

PNEC

copper sulphate, pentahydrate

Compartments	Value	Remark
Fresh water	7.8 µg/l	
Salt water	5.2 µg/l	
STP	230 µg/l	
Fresh water sediment	87 mg/kg sediment dw	
Marine water sediment	676 mg/kg sediment dw	
Soil	65 mg/kg soil dw	

8.1.5 Control banding

If applicable and available it will be listed below.

8.2. Exposure controls

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

8.2.1 Appropriate engineering controls

Keep away from naked flames/heat. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

8.2.2 Individual protection measures, such as personal protective equipment

Observe very strict hygiene - avoid contact. Keep container tightly closed. Do not eat, drink or smoke during work.

a) Respiratory protection:

Full face mask with filter type B at conc. in air > exposure limit.

b) Hand protection:

Gloves.

Materials	Breakthrough time	Thickness
viton	> 480 minutes	0.30 mm

- materials (good resistance)

Viton.

c) Eye protection:

Face shield.

d) Skin protection:

Corrosion-proof clothing.

8.2.3 Environmental exposure controls:

See headings 6.2, 6.3 and 13

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical form	Liquid
Odour	Characteristic odour
Odour threshold	No data available
Colour	No data available on colour
Particle size	Not applicable (liquid)
Explosion limits	No data available
Flammability	Non combustible
Log Kow	Not applicable (mixture)
Dynamic viscosity	1 mPa.s ; 20 °C
Kinematic viscosity	1 mm²/s ; 20 °C
Melting point	0 °C
Boiling point	100 °C - 120 °C
Evaporation rate	0.3 ; Butyl acetate
Relative vapour density	No data available
Vapour pressure	23.32 hPa ; 20 °C
Solubility	Water ; complete
Relative density	1.2 ; 20 °C
Decomposition temperature	No data available
Auto-ignition temperature	No data available
Flash point	No data available
Explosive properties	No chemical group associated with explosive properties
Oxidising properties	Not classified
pH	0.1

9.2. Other information

Absolute density	1180 kg/m³ ; 20 °C

SECTION 10: Stability and reactivity

10.1. Reactivity

Substance has acid reaction. May be corrosive to metals.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May be corrosive to metals.

10.4. Conditions to avoid

Precautionary measures

Keep away from naked flames/heat.

10.5. Incompatible materials

Oxidizing agents, reducing agents, (strong) acids, (strong) bases, metals.

10.6. Hazardous decomposition products

On burning: release of toxic and corrosive gases/vapours (nitrous vapours).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

11.1.1 Test results

Acute toxicity

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral						Data waiving	
Dermal						Data waiving	
Inhalation (aerosol)	LC50	OECD 403	2200 ppm	1 h	Rat (male)	Experimental value	Test data of the pure substance

copper sulphate, pentahydrate

Route of exposure	Parameter	Method	Value	Exposure time	Species	Value determination	Remark
Oral	LD50	OECD 401	482 mg/kg bw		Rat (male/female)	Experimental value	Anhydrous form
Dermal	LD50	OECD 402	> 2000 mg/kg bw	24 h	Rat (male/female)	Experimental value	Anhydrous form
Inhalation						Data waiving	

Conclusion

Not classified for acute toxicity

Corrosion/irritation

CA REMOVER HD

No (test)data on the mixture available

Classification is based on the relevant ingredients

nitric acid

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye						Data waiving	
Skin	Corrosive; category 1A					Annex VI	
Inhalation (mixture of vapour and aerosol)	Corrosive	OECD 403	1 h		Rat	Expert judgement	

copper sulphate, pentahydrate

Route of exposure	Result	Method	Exposure time	Time point	Species	Value determination	Remark
Eye	Highly irritating	OECD 405		24; 48; 72 hours	Rabbit	Experimental value	Single treatment without rinsing
Skin	Not irritating	OECD 404	4 h	24; 48; 72 hours	Rabbit	Experimental value	Hydrate form

Conclusion

Causes severe skin burns and eye damage.

Corrosive to the respiratory tract.

Respiratory or skin sensitisation

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin						Data waiving	

copper sulphate, pentahydrate

Route of exposure	Result	Method	Exposure time	Observation time point	Species	Value determination	Remark
Skin	Not sensitizing	OECD 406		24; 48 hours	Guinea pig (male/female)	Experimental value	

Conclusion

Not classified as sensitizing for skin

Not classified as sensitizing for inhalation

Specific target organ toxicity

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (stomach tube)	NOAEL	OECD 422	1500 mg/kg bw/day		No effect	4 weeks (daily)	Rat (male/female)	Read-across
Dermal								Data waiving
Inhalation (vapours)	LOEC		≤ 50 µg/m³	Lungs	Weakening of the immune system	4 weeks (3 times/week)	Rabbit (male)	Weight of evidence

copper sulphate, pentahydrate

Route of exposure	Parameter	Method	Value	Organ	Effect	Exposure time	Species	Value determination
Oral (diet)	NOAEL	Equivalent to EU Method B.26	1000 ppm		No effect	92 day(s)	Rat (male/female)	Experimental value
Dermal								Data waiving
Inhalation	NOAEL	OECD 412	≥ 2 mg/m³ air		No effect	4 weeks (6h/day, 5 days/week)	Rat (male/female)	Experimental value

Conclusion

Not classified for subchronic toxicity

Mutagenicity (in vitro)

CA REMOVER HD

No (test)data on the mixture available

nitric acid

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 473	Human lymphocytes		Weight of evidence

copper sulphate, pentahydrate

Result	Method	Test substrate	Effect	Value determination
Negative with metabolic activation, negative without metabolic activation	OECD 471	Bacteria (S.typhimurium)		Experimental value

Mutagenicity (in vivo)

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative		2 weeks (daily)	Mouse (male)		Read-across

copper sulphate, pentahydrate

Result	Method	Exposure time	Test substrate	Organ	Value determination
Negative	EU Method B.12	24 h	Mouse (male/female)	Bone marrow	Experimental value

Conclusion

Not classified for mutagenic or genotoxic toxicity

Carcinogenicity

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

Route of exposure	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Oral (drinking water)			4 g/l	273 day(s)	Rat (male)	No effect	General	Read-across

Conclusion

Not classified for carcinogenicity

Reproductive toxicity

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 422	1500 mg/kg/d	28 day(s) - 53 day(s)	Rat (male/female)	No effect		Read-across
Maternal toxicity	NOEL		400 mg/kg bw	10 day(s)	Mouse	No effect		Read-across
Effects on fertility	NOAEL (P)	OECD 422	≥ 1500 mg/kg bw/day	28 day(s) - 53 day(s)	Rat (male/female)	No effect		Read-across

copper sulphate, pentahydrate

	Parameter	Method	Value	Exposure time	Species	Effect	Organ	Value determination
Developmental toxicity	NOAEL	OECD 414	6 mg/kg bw/day	22 day(s)	Rabbit	No effect		Experimental value
Maternal toxicity	NOAEL	OECD 414	6 mg/kg bw/day	22 days (gestation, daily)	Rabbit	No effect		Experimental value
Effects on fertility	NOAEL (P)	OECD 416	1500 ppm	70 day(s)	Rat (male)	No effect		Experimental value
	NOAEC (P/F1/F2)	OECD 416	1000 ppm	70 day(s)	Rat (female)	No effect		Experimental value

Conclusion

Not classified for reprotoxic or developmental toxicity

Toxicity other effects

CA REMOVER HD

No (test)data on the mixture available

Chronic effects from short and long-term exposure

CA REMOVER HD

No effects known.

SECTION 12: Ecological information

12.1. Toxicity

CA REMOVER HD

No (test)data on the mixture available

Judgement is based on the relevant ingredients

nitric acid

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50	APHA	6000 mg/l	96 h	Oncorhynchus mykiss	Static system	Fresh water	Read-across; Neutralized
Acute toxicity crustacea	EC50	Equivalent to OECD 202	8609 mg/l	24 h	Daphnia magna	Static system	Fresh water	Read-across; Neutralized
Toxicity aquatic micro-organisms	EC50	OECD 209	> 1000 mg/l	3 h	Activated sludge	Static system	Fresh water	Read-across

copper sulphate, pentahydrate

	Parameter	Method	Value	Duration	Species	Test design	Fresh/salt water	Value determination
Acute toxicity fishes	LC50		2.8 µg/l	96 h	Oncorhynchus mykiss	Flow-through system	Fresh water	Experimental value; Copper ion
Acute toxicity crustacea	LC50	OECD 202	33.8 µg/l - 792 µg/l	48 h	Daphnia magna	Static system	Fresh water	Experimental value
Toxicity algae and other aquatic plants	NOEC	ISO 10253	5.7 µg/l	72 h		Static system	Fresh water	Experimental value; GLP
Long-term toxicity fish	NOEC	Equivalent to OECD 204	66 µg/l	270 day(s)	Pimephales promelas	Flow-through system	Fresh water	Experimental value; Anhydrous form
Long-term toxicity aquatic crustacea	NOEC	Equivalent to OECD 202	6.3 µg/l - 24.1 µg/l	7 day(s)	Ceriodaphnia sp.	Semi-static system	Fresh water	Experimental value; Anhydrous form
Toxicity aquatic micro-organisms	NOEC	OECD 201	3.818 mg/l	96 h	Tetrahymena pyriformis	Static system	Fresh water	Experimental value

Conclusion

Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008

12.2. Persistence and degradability

copper sulphate, pentahydrate

Biodegradation water

Method	Value	Duration	Value determination
			Data waiving

Conclusion

Biodegradability: not applicable

12.3. Bioaccumulative potential

CA REMOVER HD

Log Kow

Method	Remark	Value	Temperature	Value determination
	Not applicable (mixture)			

nitric acid

Log Kow

Method	Remark	Value	Temperature	Value determination
	No data available			

copper sulphate, pentahydrate

BCF fishes

Parameter	Method	Value	Duration	Species	Value determination
		22.9 - 731	67 day(s)	Oncorhynchus mykiss	Experimental value

Log Kow

Method	Remark	Value	Temperature	Value determination
		-0.2		

Conclusion

Does not contain bioaccumulative component(s)

12.4. Mobility in soil

copper sulphate, pentahydrate

(log) Koc

Parameter	Method	Value	Value determination
log Koc		4.54 - 6.46	Experimental value

Conclusion

No straightforward conclusion can be drawn based upon the available numerical values

12.5. Results of PBT and vPvB assessment

The criteria of PBT and vPvB as listed in Annex XIII of Regulation (EC) No 1907/2006 do not apply to inorganic substances.

12.6. Other adverse effects

CA REMOVER HD

Fluorinated greenhouse gases (Regulation (EU) No 517/2014)

None of the known components is included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014)

Ozone-depleting potential (ODP)

Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009)

copper sulphate, pentahydrate

Groundwater

Groundwater pollutant

SECTION 13: Disposal considerations

The information in this section is a general description. If applicable and available, exposure scenarios are attached in annex. Always use the relevant exposure scenarios that correspond to your identified use.

13.1. Waste treatment methods

13.1.1 Provisions relating to waste

European Union

Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
Waste material code (Directive 2008/98/EC, Decision 2000/0532/EC).
20 01 29* (separately collected fractions (except 15 01): detergents containing hazardous substances). Depending on branch of industry and production process, also other waste codes may be applicable.

13.1.2 Disposal methods

Recycle/reuse. Neutralize. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Treat using the best available techniques before discharge into drains or the aquatic

13.1.3 Packaging/Container

European Union

Waste material code packaging (Directive 2008/98/EC).
15 01 10* (packaging containing residues of or contaminated by dangerous substances).

SECTION 14: Transport information

Road (ADR)

14.1. UN number

UN number	3264

14.2. UN proper shipping name

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3. Transport hazard class(es)

Hazard identification number	80
Class	8
Classification code	C1

14.4. Packing group

Packing group	II
Labels	8

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Rail (RID)

14.1. UN number

UN number	3264

14.2. UN proper shipping name

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3. Transport hazard class(es)

Hazard identification number	80
Class	8
Classification code	C1

14.4. Packing group

Packing group	II
Labels	8

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Inland waterways (ADN)

14.1. UN number

UN number	3264

14.2. UN proper shipping name

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3. Transport hazard class(es)

Class	8
Classification code	C1

14.4. Packing group

Packing group	II
Labels	8

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

Sea (IMDG/IMSBC)

14.1. UN number

UN number	3264

14.2. UN proper shipping name

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3. Transport hazard class(es)

Class	8

14.4. Packing group

Packing group	II
Labels	8

14.5. Environmental hazards

Marine pollutant	-
Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	274
Limited quantities	Combination packagings: not more than 1 liter per inner packaging for liquids. A package shall not weigh more than 30 kg. (gross mass)

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Annex II of MARPOL 73/78	Not applicable, based on available data

Air (ICAO-TI/IATA-DGR)

14.1. UN number

UN number	3264

14.2. UN proper shipping name

Proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (nitric acid)

14.3. Transport hazard class(es)

Class	8

14.4. Packing group

Packing group	II
Labels	8

14.5. Environmental hazards

Environmentally hazardous substance mark	no

14.6. Special precautions for user

Special provisions	A3
Special provisions	A803
Limited quantities: maximum net quantity per packaging	0.5 L

SECTION 15: Regulatory information

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

European legislation:

VOC content Directive 2010/75/EU

VOC content	Remark
	Not applicable (inorganic)

European drinking water standards (Directive 98/83/EC)

nitric acid

Parameter	Parametric value	Note	Reference
Nitrate	50 mg/l		Listed in Annex I, Part B, of Directive 98/83/EC on the quality of water intended for human consumption.

copper sulphate, pentahydrate

Parameter	Parametric value	Note	Reference
Copper	2 mg/l		Listed in Annex I, Part B, of Directive 98/83/EC on the quality of water intended for human consumption.
Sulphate	250 mg/l		Listed in Annex I, Part C, of Directive 98/83/EC on the quality of water intended for human consumption.

REACH Annex XVII - Restriction

Contains component(s) subject to restrictions of Annex XVII of Regulation (EC) No 1907/2006: restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles.

	Designation of the substance, of the group of substances or of the mixture	Conditions of restriction
· nitric acid	Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: (a) hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F; (b) hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10; (c) hazard class 4.1; (d) hazard class 5.1.	1. Shall not be used in: — ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays, — tricks and jokes, — games for one or more participants, or any article intended to be used as such, even with ornamental aspects, 2. Articles not complying with paragraph 1 shall not be placed on the market. 3. Shall not be placed on the market if they contain a colouring agent, unless required for fiscal reasons, or perfume, or both, if they: — can be used as fuel in decorative oil lamps for supply to the general public, and, — present an aspiration hazard and are labelled with R65 or H304, 4. Decorative oil lamps for supply to the general public shall not be placed on the market unless they conform to the European Standard on Decorative oil lamps (EN 14059) adopted by the European Committee for Standardisation (CEN). 5. Without prejudice to the implementation of other Community provisions relating to the classification, packaging and labelling of dangerous substances and mixtures, suppliers shall ensure, before the placing on the market, that the following requirements are met:

		a) lamp oils, labelled with R65 or H304, intended for supply to the general public are visibly, legibly and indelibly marked as follows: “Keep lamps filled with this liquid out of the reach of children”; and, by 1 December 2010, “Just a sip of lamp oil — or even sucking the wick of lamps — may lead to life- threatening lung damage”; b) grill lighter fluids, labelled with R65 or H304, intended for supply to the general public are legibly and indelibly marked by 1 December 2010 as follows: “Just a sip of grill lighter may lead to life threatening lung damage”; c) lamp oils and grill lighters, labelled with R65 or H304, intended for supply to the general public are packaged in black opaque containers not exceeding 1 litre by 1 December 2010. 6. No later than 1 June 2014, the Commission shall request the European Chemicals Agency to prepare a dossier, in accordance with Article 69 of the present Regulation with a view to ban, if appropriate, grill lighter fluids and fuel for decorative lamps, labelled R65 or H304, intended for supply to the general public. 7. Natural or legal persons placing on the market for the first time lamp oils and grill lighter fluids, labelled with R65 or H304, shall by 1 December 2011, and annually thereafter, provide data on alternatives to lamp oils and grill lighter fluids labelled R65 or H304 to the competent authority in the Member State concerned. Member States shall make those data available to the Commission.’

National legislation Belgium

CA REMOVER HD

No data available

National legislation The Netherlands

CA REMOVER HD

Waterbezwaarlijkheid	A (3)

National legislation France

CA REMOVER HD

No data available

National legislation Germany

CA REMOVER HD

WGK	1; Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4) and Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (AwSV) of 18 April 2017

copper sulphate, pentahydrate

TA-Luft	5.2.1

National legislation United Kingdom

CA REMOVER HD

No data available

Other relevant data

CA REMOVER HD

No data available

15.2. Chemical safety assessment

No chemical safety assessment has been conducted for the mixture.

SECTION 16: Other information

Full text of any H-statements referred to under heading 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.
H410 Very toxic to aquatic life with long lasting effects.

(*)	INTERNAL CLASSIFICATION BY BIG
CLP (EU-GHS)	Classification, labelling and packaging (Globally Harmonised System in Europe)
DMEL	Derived Minimal Effect Level
DNEL	Derived No Effect Level
EC50	Effect Concentration 50 %
ErC50	EC50 in terms of reduction of growth rate
LC50	Lethal Concentration 50 %
LD50	Lethal Dose 50 %
NOAEL	No Observed Adverse Effect Level
NOEC	No Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, Bioaccumulative & Toxic
PNEC	Predicted No Effect Concentration

STP	Sludge Treatment Process
vPvB	very Persistent & very Bioaccumulative

M-factor

copper sulphate, pentahydrate	10	Acute	CLP Annex VI (ATP 9)

Specific concentration limits CLP

nitric acid ... %	C ≥ 20 %	Skin Corr. 1A; H314	CLP Annex VI (ATP 7)
	5 % ≤ C < 20 %	Skin Corr. 1B; H314	CLP Annex VI (ATP 7)
	C ≥ 99 %	Ox. Liq. 2; H272	CLP Annex VI (ATP 7)
	65 % ≤ C < 99 %	Ox. Liq. 3; H272	CLP Annex VI (ATP 7)
	C ≥ 20 %	Metal Corr. 1;H290	ECHA