RUST KILLER

In conformity to Regulation (EU) 2020/878

SECTION1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code : RUST KILLER
Trades code : 141

UFI: 7T40-903P-C00R-QRXY

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

liquid deoxidizer

Sectors of use:
Industrial Manufacturing (all)[SU3], Public domain (administration, education, entertainment, services, craftsmen)[SU22]

Product category:
Metal surface treatment products, including galvanic and electroplating products

Uses advised against
Do not use for purposes other than those listed

1.3. Details of the supplier of the safety data sheet

DELMET srl
Via Gera, 76, 20060 Gessate (MI) - Italy
tel. 0039-(0)2-9517504
Email: info@delmet.it - www.delmet.it

National contact: UK NPIS - National Poison Information Service:

1.4. Emergency telephone number

+44 / 0344 892 0111

SECTION2. Hazards identification

2.1. Classification of the substance or mixture

2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:
GHS05, GHS07

Hazard Class and Category Code(s):
Met. Corr. 1, Acute Tox. 4, Skin Corr. 1, Eye Dam. 1

Hazard statement Code(s):
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.
H318 - Causes serious eye damage.

The product can be corrosive to metals
Harmful product: do not ingest

Corrosive product: causes severe skin burns and eye damage.
If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.

2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:



Pictogram, Signal Word Code(s):
GHS05, GHS07 - Danger

Hazard statement Code(s):
H290 - May be corrosive to metals.
H302 - Harmful if swallowed.
H314 - Causes severe skin burns and eye damage.

Supplemental Hazard statement Code(s):
EUH071 - Corrosive to the respiratory tract.

Precautionary statements:
Prevention
P260 - Do not breathe fume/gas/mist/vapours/spray.
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 [or shower].
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a POISON CENTER/doctor.

Contains: phosphoric acid, ammonium bifluoride, Isotridecanol ethoxylated

UFI: 7T40-903P-C00R-QRXY

2.3. Other hazards

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

No information on other hazards

SECTION3. Composition/information on ingredients

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of hazard statements

Note B - Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: 'nitric acid ... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Substance	Concentration[w/w]	Classification	Index	CAS	EINECS	REACh
phosphoric acid Note: B	>= 25 < 50%	Met. Corr. 1, H290; Acute Tox. 4, H302; Skin Corr. 1B, H314 Limits: Skin Corr. 1B, H314 %C >=25; Skin Irrit. 2, H315 10<= %C <25; Eye Irrit. 2, H319 10<= %C <25; ATE oral = 300,0 mg/kg ATE dermal = 2.740,0 mg/kg	015-011-00-6	7664-38-2	231-633-2	01-2119485 924-24
Isotridecanol ethoxylated	>= 1 < 3%	Acute Tox. 4, H302; Eye Dam. 1, H318 ATE oral > 2.000,0 mg/kg ATE dermal > 2.000,0 mg/kg	ND	69011-36-5	931-138-8	ND
ammonium bifluoride	>0,1 <=1%	Acute Tox. 3, H301; Skin Corr. 1B, H314 Limits: Skin Corr. 1B, H314 %C >=1; Skin Irrit. 2, H315 0,1<= %C <1; Eye Irrit. 2, H319 0,1<= %C <1; ATE oral = 130,0 mg/kg	009-009-00-4	1341-49-7	215-676-4	01-2119489 180-38-xxxx
nitric acid Note: B	>= 0,1 < 1%	EUH071; Ox. Liq. 2, H272; Met. Corr. 1, H290; Skin Corr. 1A, H314; Acute Tox. 3, H331 Limits: Skin Corr. 1A, H314 %C >=20; Skin Corr. 1B, H314 5<= %C <20; Ox. Liq. 3, H272 %C >=65; ATE inhal = 2,7mg/l/4 h	007-004-00-1	7697-37-2	231-714-2	01-2119487 297-23-xxxx

SECTION4. First aid measures

4.1. Description of first aid measures

Inhalation:
Air the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

Direct contact with skin (of the pure product).:
Take contaminated clothing Immediately off.
In case of contact with skin, wash immediately with water.
Consult a physician immediately

Direct contact with eyes (of the pure product).:
Wash immediately and thoroughly with running water, keeping eyelids open for at least 10 minutes, then protect your eyes with a dry sterile gauze. Seek medical advice immediately
Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

Ingestion:
The product is harmful and can cause irreversible damages even following a single exposure if swallowed.
Drink water with egg white; do not give bicarbonate.
Absolutely do not induce vomiting or emesis. Seek medical advice immediately.

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

No data available.

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

Immediately call a POISON CENTER/doctor.

SECTION5. Firefighting measures

5.1. Extinguishing media

Advised extinguishing agents:
Water spray, CO2, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing means to avoid:
Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

5.2. Special hazards arising from the substance or mixture

No data available.

5.3. Advice for firefighters

Use protection for the breathing apparatus
Safety helmet and full protective suit.
The spray water can be used to protect the people involved in the extinction
You may also use selfrespirator, especially when working in confined and poorly ventilated area and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)
Keep containers cool with water spray

SECTION6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1 For non-emergency personnel:
Leave the area surrounding the spill or release. Do not smoke
Wear mask, gloves and protective clothing.

6.1.2 For emergency responders:
Wear a mask and protective clothing. Gloves preferably in Nitrile or Neoprene.
Eliminate all unguarded flames and possible sources of ignition. No smoking.
Provision of sufficient ventilation.
Evacuate the danger area and, in case, consult an expert.

6.2. Environmental precautions

Contain spill with earth or sand.
If the product has entered a watercourse in sewers or has contaminated soil or vegetation, notify it to the the authorities.
Discharge the remains in compliance with the regulations

6.3. Methods and material for containment and cleaning up

6.3.1 For containment:
Rapidly recover the product, wear a mask and protective clothing
Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.
Prevent it from entering the sewer system.

6.3.2 For cleaning up:
After wiping up, wash with water the area and materials involved

6.3.3 Other information:
None in particular.

6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

SECTION7. Handling and storage

7.1. Precautions for safe handling

Avoid contact and inhalation of vapors
Wear protective gloves/protective clothing/eye protection/face protection.
In residential areas do not use on large surfaces.
At work do not eat or drink.
Do not eat, drink or smoke when using this product.
See also paragraph 8 below.

7.2. Conditions for safe storage, including any incompatibilities

Keep in original container closed tightly. Do not store in open or unlabeled containers.
Keep containers upright and safe by avoiding the possibility of falls or collisions.
Store in a cool place, away from sources of heat and `direct exposure of sunlight.

7.3. Specific end use(s)

Industrial Manufacturing (all):
Refer to section 1.2

Public domain (administration, education, entertainment, services, craftsmen):
Refer to section 1.2

SECTION8. Exposure controls/personal protection

8.1. Control parameters

Related to contained substances:
phosphoric acid:
Type of limit value (country of provenance): STEL (UK) Limit value: 2 mg / m3 (15 min average IOELV)
Type of limit value (country of provenance): TWA (UK) Limit value: 1 mg / m3

ammonium bifluoride:
OEL-UK: TWA 2.5 mg(F)/m3

nitric acid:
STEL (EC) Limit value: 1 ppm / 2.6 mg/m3 - 15 minutes average value (IOELV)
STEL (UK) Limit value: 1 ppm / 2.6 mg/m3

- Substance: phosphoric acid
DNEL
Systemic effects Long term Workers inhalation = 10,7 (mg/m3)
Systemic effects Long term Consumers inhalation = 4,57 (mg/m3)
Systemic effects Long term Consumers oral = 0,1 (mg/kg bw/day)
Local effects Long term Workers inhalation = 1 (mg/m3)
Local effects Long term Consumers inhalation = 0,36 (mg/m3)
Local effects Short term Workers inhalation = 2 (mg/m3)

- Substance: ammonium bifluoride
DNEL
Systemic effects Long term Workers inhalation = 2,3 (mg/m3)
Systemic effects Long term Consumers inhalation = 0,045 (mg/m3)
Systemic effects Long term Consumers oral = 0,015 (mg/kg bw/day)
Systemic effects Short term Workers inhalation = 3,8 (mg/m3)
PNEC
Sweet water = 1,3 (mg/l)
ground = 22 (mg/kg ground)

- Substance: nitric acid
DNEL
Local effects Long term Workers inhalation = 2,6 (mg/m3)
Local effects Long term Consumers inhalation = 1,3 (mg/m3)
Local effects Short term Workers inhalation = 2,6 (mg/m3)
Local effects Short term Consumers inhalation = 1,3 (mg/m3)

8.2. Exposure controls



Appropriate technical controls:
If, following the risk assessment and the adoption of technical preventive and/or organizational collective protection measures, it is found that there is still a residual risk for the worker, it is necessary to provide the worker with Personal Protective Equipment. In any case, each company must comply with the provisions issued by the Head of the Prevention and Protection Service.

Individual protection measures:

(a) Eye / face protection:
Wear cage goggles or a protective mask (UNI EN 166)

(b) Skin protection:

i) Hand protection:

When handling the pure product, use chemical-resistant protective gloves (EN 374-1/EN374 - 2/EN374-3). We recommend using Neoprene-latex gloves Cat.III reg. EU 425/2016 thickness 0.70mm permeation time >480 min. The choice of gloves based on resistance must be made following the UNI EN 16523 standard - Determination of the resistance of materials to the permeation of chemical products.

ii) Other
When handling the pure product, wear clothing that provides complete skin protection (EN 13034:05+A1:2009) - (Category III, EN14605:2005+A1:2009, type-3, type-4).

(c) Respiratory protection:
In the absence of adequate ventilation if there is a risk of exceeding the threshold value of one or more of the substances present in the product, it is recommended to wear a protective mask (ref. UNI EN 14387 standard). The use of respiratory protection devices is necessary if the technical measures adopted are not sufficient to limit the worker's exposure to the threshold values taken into consideration. For the correct choice of respiratory protection device, refer to the UNI EN 529 standard. For the use and maintenance of Respiratory Protection Devices (APVR), refer to the UNI 11719 standard.

d) Thermal hazards
No hazards to report

Environmental exposure controls:
Use according to good working practices, avoiding dispersing the product into the environment.

SECTION9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Physical state	liquid	visual
Colour	light blue	visual
Odour	slight anise	olfactory
Odour threshold	not determined	\
Melting point/freezing point	<= 0°C	acqueous mixture
Boiling point or initial boiling point and boiling range	>=100°C	acqueous mixture
Flammability	irrelevant	acqueous mixture of non-flammable substances
Lower and upper explosion limit	not determined	\
Flash point	nonflammable	acqueous mixture of non-flammable substances
Auto-ignition temperature	irrelevant	\
Decomposition temperature	not determined	\
pH	<1	OECD Test Guideline 122
Kinematic viscosity	not determined, similar to water	direct comparison with water
Solubility	in water	physico-chemical property
Water solubility	completely soluble	physico-chemical property
Partition coefficient n-octanol/water (log value)	not determined	\
Vapour pressure	not determined	\
Density and/or relative density	1,2±0,05 kg/dm3	bulb hydrometer
Relative vapour density	not determined	\
Particle characteristics	irrelevant	\

Physical and chemical properties	Value	Determination method

9.2. Other information

9.2.1 Information with regard to physical hazard classes

Irrilevant

9.2.2 Other safety characteristics

a) mechanical sensitivity
Irrilevant

b) self-accelerating polymerisation temperature
Irrilevant

c) formation of explosible dust/air mixtures
Irrilevant

d) acid/alkaline reserve
high acid reserve

e) evaporation rate
Irrilevant

f) miscibility
with water

g) conductivity
high

h) corrosiveness
May corrode Aluminum and light alloys

i) gas group
Irrilevant

j) redox potential
Irrilevant

k) radical formation potential
Irrilevant

l) photocatalytic properties
Irrilevant

SECTION10. Stability and reactivity

10.1. Reactivity

No reactivity hazards

10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

10.3. Possibility of hazardous reactions

There are no hazardous reactions

10.4. Conditions to avoid

Nothing to report

10.5. Incompatible materials

It can generate inflammable gases to contact with carbamate, elementary metals, nitrile.
It can generate toxic gases to contact with amide, aliphatic and aromatic amines, compounds nitrogenized, dinitrogenized and hydrazine, carbamate, inorganic fluoride, halogenated organic substances, isocyanetic, sulfide, organic nitrous compounds, organic phosphates.
It can ignite in contact with alcohol and glyicol, aldehydes, ditiocarbamate, ester, ethers, hydrocarbons aromatic and aliphatic, halogenated organic substances, isocyanetic, ketone, sulfide, organic nitrous compounds, phenols and cresols.

10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

SECTION11. Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

ATE(mix) oral = 972,9 mg/kg
ATE(mix) dermal = ∞
ATE(mix) inhal = 268,2 mg/l/4 h

(a) acute toxicity: Harmful product: do not ingest
(b) skincorrosion/irritation: Corrosive product: causes severe skin burns and eye damage.
(c) serious eye damage/irritation: Corrosive product: causes severe skin burns and eye damage. - If brought into contact with eyes, the product causes serious damages to eyes, such as an opaque cornea or injury to iris.
(d) respiratoryorskinsensitisation: based on available data, the classification criteria are not met.
(e) germ cell mutagenicity: based on available data, the classification criteria are not met.
(f) carcinogenicity: based on available data, the classification criteria are not met.
(g) eproductivetoxicity: phosphoric acid: One Generation Reproductive Toxicity Essay
Parameter: NOAEL (C) (PHOSPHORIC ACID; CAS No .: 7664-38-2)
Route of exposure: Rat , Effective dose:> = 500 mg / kg bw / day
nitric acid: One Generation Reproductive Toxicity Essay
Parameter: One-generation reproductive toxicity test (NITRIC ACID; CAS-No .: 7697-37-2)
Route of exposure: Rat , Effective dose:> = 1500 mg / kg bw / day , Method: OECD 422

(h) specific target organ toxicity (STOT) single exposure: based on available data, the classification criteria are not met.
(i) specific target organ toxicity (STOT) repeated exposurephosphoric acid: Study data: oral
NOAEL (dog): 322.88 - 492.77 mg/kg bw/day ; LOAEL (rat): 155 mg/kg bw/day
nitric acid: Parameter: NOAEL (C) (NITRIC ACID; CAS No .: 7697-37-2)
Route of exposure: Oral, Species: Rat, Effective dose: 1500 mg / kg bw / day, Method: OECD 422

Subacute inhalation toxicity
Parameter: NOAEL (C) (NITRIC ACID; CAS No .: 7697-37-2)
Route of Exposure: Inhalation, Species: Rat, Effective dose: 2.15 ppm, Exposure time: 90 days, Method: OECD 413.
(j) aspiration hazard: based on available data, the classification criteria are not met.

Related to contained substances:
phosphoric acid:
LD50 (rat) Oral (mg/kg body weight) = 300
LD50 Dermal (rat or rabbit) (mg/kg body weight) = 2740

Isotridecanol ethoxylated:
LD50 (rat) Oral (mg/kg body weight) > 2000
LD50 Dermal (rat or rabbit) (mg/kg body weight) > 2000

ammonium bifluoride:
LD50 (rat) Oral (mg/kg body weight) = 130

nitric acid:
CL50 Inhalation (rat) vapour/dust/mist/fume (mg/l/4h) or gas (ppmV/4h) = 2,65

11.2. Information on other hazards

No data available.

SECTION12. Ecological information

12.1. Toxicity

Related to contained substances:
phosphoric acid:
Short–term toxicity to aquatic invertebrates:
EC50 (48 h) 100 mg/L ; NOEC (48 h) 56 mg/L
Toxicity to aquatic algae and cyanobacteria:
EC50 (72 h) 100 mg/L ; NOEC (72 h) 100 mg/L
Toxicity to microorganisms:
EC50 (3 h) 1 g/L ; NOEC (3 h) 1 g/L
LC50 - Species: Fish = 75.1 mg/l - Duration h: 96

Isotridecanol ethoxylated:
LC50 - Fish> 1 mg / l / 96h
EC50 - Crustaceans> 1 mg / l / 48h
EC50 - Algae / Aquatic Plants> 1 mg / l / 72h
EC10 Algae / Aquatic Plants 2.6 mg / l / 28d

ammonium bifluoride:
Freshwater fish toxicity
CL□□,: 422 mg / L Acute toxicity
EC10 / LC10: 4 mg / L Long term toxicity.

Freshwater invertebrate toxicity
EC50 / LC50: 26 mg / L Acute toxicity
EC50 / LC50: 8.9 mg / l Long-term toxicity.

Algae toxicity
EC50 / LC50,: 43 mg / L, Freshwater algae
EC50 / LC50,: 81 mg / L, Seawater algae
EC10 / LC10,: 50 mg / L, Freshwater algae
EC10 / LC10,: 50 mg / L, Seawater algae.

nitric acid:
Toxicity for waters
Acute (short-term) toxicity to fish
Parameter: EC50 (NITRIC ACID; CAS No .: 7697-37-2)
Species: Lepomis macrochirus (sun perch) , Effective dose: 3 - 3.5 mg / l
Acute (short-term) toxicity to crustaceans
Parameter: EC50 (NITRIC ACID; CAS No .: 7697-37-2)
Species: Ceriodaphnia dubia , Effective dose: 4.4 mg / l , Exposure time: 48 h
C(E)L50 (mg/l) = 200

Use according to good working practices to avoid pollution into the environment.

12.2. Persistence and degradability

Related to contained substances:
Isotridecanol ethoxylated:
Quickly degradable

ammonium bifluoride:
No experimental data recorded

12.3. Bioaccumulative potential

Related to contained substances:
Isotridecanol ethoxylated:
Bioaccumulation is unlikely. (literature value)

12.4. Mobility in soil

Related to contained substances:
Isotridecanol ethoxylated:
Strong soil absorption property (literature value)

12.5. Results of PBT and vPvB assessment

Based on the available data, no PBT or vPvB substances are present in accordance with Regulation (EC) 1907/2006, annex XIII

12.6. Endocrine disrupting properties

Based on available data, there are no substances that interfere with the Endocrine System in accordance with Regulation (EU) 2017/2100

12.7. Other adverse effects

No adverse effects

SECTION13. Disposal considerations

13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.
Recover if possible. Operate according to local or national regulations

SECTION14. Transport information

14.1. UN number or ID number

ADR/RID/IMDG/ICAO-IATA: 1760



If subject to the following characteristics is ADR exempt:
Combination packagings: per inner packaging 1 L per package 30 Kg
Inner packagings placed in skrink-wrapped or stretch-wrapped trays: per inner packaging 1 L per package 20 Kg

14.2. UN proper shipping name

ADR/RID/IMDG: LIQUIDO CORROSIVO, N.A.S. (acido fosforico, bifluoruro d'ammonio)
ADR/RID/IMDG: CORROSIVE LIQUID, N.O.S. (phosphoric acid, ammonium bifluoride)
ICAO-IATA: CORROSIVE LIQUID, N.O.S. (phosphoric acid, ammonium bifluoride)

14.3. Transport hazard class(es)

ADR/RID/IMDG/ICAO-IATA: Class : 8
ADR/RID/IMDG/ICAO-IATA: Label : 8
ADR: Tunnel restriction code : E
ADR/RID/IMDG/ICAO-IATA: Limited quantities : 1 L
IMDG - EmS : F-A, S-B

14.4. Packing group

ADR/RID/IMDG/ICAO-IATA: II

14.5. Environmental hazards

ADR/RID/ICAO-IATA: Product is not environmentally hazardous
IMDG: Marine polluting agent : Not

14.6. Special precautions for user

No data available.

14.7. Maritime transport in bulk according to IMO instruments

It is not intended to carry bulk

SECTION15. Regulatory information

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

REGULATION (EU) No 1357/2014 - waste:
HP8 - Corrosive

Substances in the Candidate List (REACH Article 59)
Based on available data, no SVHC substances are present

15.2. Chemical safety assessment

The supplier has not carried out a chemical safety assessment for the mixture. The hazardous substances contained Phosphoric acid, nitric acid, ammonium bifluoride have exposure scenarios for the specific intended use.

SECTION16. Other information

16.1. Other information

Points modified compared to previous release: 2.1. Classification of the substance or mixture, 2.2. Label elements, 2.3. Other hazards, 4.1. Description of first aid measures, 6.1. Personal precautions, protective equipment and emergency procedures, 7.1. Precautions for safe handling, 7.3. Specific end use(s), 8.1. Control parameters, 8.2. Exposure controls, 9.2.1 Information with regard to physical hazard classes, 9.2.2 Other safety characteristics, 10.5. Incompatible materials, 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008, 12.1. Toxicity, 12.6. Endocrine disrupting properties, 14.2. UN proper shipping name

Description of the hazard statements exposed to point 3
H290 = May be corrosive to metals.
H302 = Harmful if swallowed.
H314 = Causes severe skin burns and eye damage.
H318 = Causes serious eye damage.
H301 = Toxic if swallowed.
H272 = May intensify fire; oxidiser.
H331 = Toxic if inhaled.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008

H290 - May be corrosive to metals. Classification procedure: On basis of test data
H302 - Harmful if swallowed. Classification procedure: Calculation method
H314 - Causes severe skin burns and eye damage. Classification procedure: Calculation method
H318 - Causes serious eye damage. Classification procedure: Calculation method