

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

1.1. Product identifier

| | |
|----------------|---|
| Product form | : Substance |
| Substance name | : VANADIUM PENTOXIDE |
| Chemical name | : divanadium pentaoxide; vanadium pentoxide |
| EC Index-No. | : 023-001-00-8 |
| EC-No. | : 215-239-8 |
| CAS-No. | : 1314-62-1 |
| Product code | : B1187, B4001, B4008, B4010 |
| Synonyms | : VANADIUM (V) OXIDE; DIVANADIUM PENTOXIDE |
| Product group | : End product |

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

1.2.1. Relevant identified uses

| | |
|------------------------------|------------------------|
| Main use category | : Professional use |
| Use of the substance/mixture | : Laboratory chemicals |
| Function or use category | : Laboratory chemicals |

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Elemental Microanalysis Ltd
1 Hameldown Road
Okehampton – Devon EX20 1UB
GB United Kingdom
T +44 1837 54446
enquiries@microanalysis.co.uk - <https://www.elementalmicroanalysis.com/>

1.4. Emergency telephone number

Emergency number : +44 (0) 7990 767375

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

| | |
|--|--------|
| Germ cell mutagenicity, Category 2 | H341 |
| Carcinogenicity, Category 1B | H350 |
| Reproductive toxicity, Category 2 | H361fd |
| Reproductive toxicity, Additional category, Effects on or via lactation | H362 |
| Acute toxicity (oral), Category 3 | H301 |
| Acute toxicity (inhal.), Category 2 | H330 |
| Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation | H335 |
| Specific target organ toxicity – Repeated exposure, Category 1 | H372 |
| Hazardous to the aquatic environment – Chronic Hazard, Category 2 | H411 |
| Full text of H- and EUH-statements: see section 16 | |

Adverse physicochemical, human health and environmental effects

May cause cancer. Suspected of causing genetic defects. May cause harm to breast-fed children. Suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Fatal if inhaled. Toxic if swallowed. May cause respiratory irritation. Toxic to aquatic life with long lasting effects.

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2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : H341 - Suspected of causing genetic defects.
H350 - May cause cancer.
H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child.
H362 - May cause harm to breast-fed children.
H301 - Toxic if swallowed.
H330 - Fatal if inhaled.
H335 - May cause respiratory irritation.
H372 - Causes damage to organs (respiratory tract) through prolonged or repeated exposure (inhalation).
H411 - Toxic to aquatic life with long lasting effects.
- : P201 - Obtain special instructions before use.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P263 - Avoid contact during pregnancy and while nursing.
P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P304+P340+P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

2.3. Other hazards

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

| | |
|----------------|----------------------|
| Substance type | : Mono-constituent |
| Name | : VANADIUM PENTOXIDE |
| CAS-No. | : 1314-62-1 |
| EC-No. | : 215-239-8 |
| EC Index-No. | : 023-001-00-8 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------|---|-----|---|
| VANADIUM PENTOXIDE | CAS-No.: 1314-62-1 EC-No.: 215-239-8 EC Index-No.: 023-001-00-8 | 100 | Muta. 2, H341 Carc. 1B, H350 Repr. 2, H361fd Lact., H362 Acute Tox. 3 (Oral), H301 (ATE=220 mg/kg bodyweight) Acute Tox. 2 (Inhalation), H330 (ATE=0.05 mg/l) STOT SE 3, H335 STOT RE 1, H372 Aquatic Chronic 2, H411 |

Full text of H- and EUH-statements: see section 16

3.2. Mixtures

Not applicable

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SECTION 4: First aid measures

4.1. Description of first aid measures

| | |
|---------------------------------------|---|
| First-aid measures general | : Call a physician immediately. |
| First-aid measures after inhalation | : Remove person to fresh air and keep comfortable for breathing. Call a physician immediately. Call a doctor. |
| First-aid measures after skin contact | : Wash skin with plenty of water. |
| First-aid measures after eye contact | : Rinse eyes with water as a precaution. |
| First-aid measures after ingestion | : Rinse mouth. Call a physician immediately. |

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

| | |
|-----------------------------------|-------------------------------------|
| Symptoms/effects after inhalation | : May cause respiratory irritation. |
|-----------------------------------|-------------------------------------|

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

| | |
|------------------------------|----------------------------------|
| Suitable extinguishing media | : Water spray. Dry powder. Foam. |
|------------------------------|----------------------------------|

5.2. Special hazards arising from the substance or mixture

| | |
|--|--------------------------------|
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |
|--|--------------------------------|

5.3. Advice for firefighters

| | |
|--------------------------------|--|
| Protection during firefighting | : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing. |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Emergency procedures | : Only qualified personnel equipped with suitable protective equipment may intervene. Do not breathe dust/fume/gas/mist/vapours/spray. |
|----------------------|--|

6.1.2. For emergency responders

| | |
|----------------------|---|
| Protective equipment | : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection". |
|----------------------|---|

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Collect spillage. |
| Methods for cleaning up | : Mechanically recover the product. Notify authorities if product enters sewers or public waters. |
| Other information | : Dispose of materials or solid residues at an authorized site. |

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-------------------------------|--|
| Precautions for safe handling | : Ensure good ventilation of the work station. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Wear personal protective equipment. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid contact during pregnancy/while nursing. Do not breathe dust/fume/gas/mist/vapours/spray. |
| Hygiene measures | : Separate working clothes from town clothes. Launder separately. Do not eat, drink or smoke when using this product. Always wash hands after handling the product. |

7.2. Conditions for safe storage, including any incompatibilities

| | |
|--------------------|--|
| Storage conditions | : Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool. |
|--------------------|--|

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

VANADIUM PENTOXIDE (1314-62-1)

United Kingdom - Occupational Exposure Limits

| | |
|-----------------------|---------------------------------------|
| Local name | Vanadium pentoxide |
| WEL TWA (OEL TWA) [1] | 0.05 mg/m ³ |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

VANADIUM PENTOXIDE (1314-62-1)

United Kingdom - Occupational Exposure Limits

| | |
|-----------------------|---------------------------------------|
| Local name | Vanadium pentoxide |
| WEL TWA (OEL TWA) [1] | 0.05 mg/m ³ |
| Regulatory reference | EH40/2005 (Fourth edition, 2020). HSE |

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

VANADIUM PENTOXIDE (1314-62-1)

DNEL/DMEL (Workers)

| | |
|---------------------------------------|------------------------|
| Acute - local effects, inhalation | 0.7 mg/m ³ |
| Long-term - local effects, inhalation | 0.14 mg/m ³ |

DNEL/DMEL (General population)

| | |
|-----------------------------------|--------------------------|
| Acute - systemic effects, oral | 0.7 mg/kg bodyweight/day |
| Acute - local effects, inhalation | 0.45 mg/m ³ |

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| VANADIUM PENTOXIDE (1314-62-1) | |
|---------------------------------------|---------------------------|
| Long-term - systemic effects, oral | 0.14 mg/kg bodyweight/day |
| Long-term - local effects, inhalation | 0.09 mg/m ³ |
| PNEC (Water) | |
| PNEC aqua (freshwater) | 17.8 µg/l |
| PNEC aqua (marine water) | 2.5 µg/l |
| PNEC aqua (intermittent, freshwater) | 6.93 µg/l |
| PNEC (Sediment) | |
| PNEC sediment (freshwater) | 563 mg/kg dwt |
| PNEC sediment (marine water) | 79 mg/kg dwt |
| PNEC (Soil) | |
| PNEC soil | 7.2 mg/kg dwt |
| PNEC (Oral) | |
| PNEC oral (secondary poisoning) | 0.167 mg/kg food |
| PNEC (STP) | |
| PNEC sewage treatment plant | 450 µg/l |

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

8.2.2.3. Respiratory protection

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

8.2.2.4. Thermal hazards

No additional information available

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8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|---|
| Physical state | : Solid |
| Colour | : Orange. |
| Molecular mass | : 181.879 g/mol Source: ChemIDPlus |
| Odour | : odourless. |
| Odour threshold | : Not available |
| Melting point | : 671 °C Source: ECHA |
| Freezing point | : Not applicable |
| Boiling point | : 1750 °C Source: ECHA |
| Flammability | : Non flammable. |
| Explosive limits | : Not applicable |
| Lower explosion limit | : Not applicable |
| Upper explosion limit | : Not applicable |
| Flash point | : Not applicable |
| Auto-ignition temperature | : Not applicable |
| Decomposition temperature | : Not available |
| pH | : 4 |
| pH solution | : Not available |
| Viscosity, kinematic | : Not applicable |
| Solubility | : Water: 0.92 g/l at 20°C Source: ECHA |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50°C | : Not available |
| Density | : 3.65 g/cm ³ Type: 'density' Temp.: 21,7 °C |
| Relative density | : 3.65 Source: ECHA |
| Relative vapour density at 20°C | : Not applicable |
| Particle size | : Not available |

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

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10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Toxic if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Fatal if inhaled.

VANADIUM PENTOXIDE (1314-62-1)

| | |
|---------------------------------|--|
| LD50 oral rat | 221.1 mg/kg Source: ECHA |
| LD50 dermal rat | > 2500 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat (Vapours) | 4.29 mg/l Source: ECHA |

VANADIUM PENTOXIDE (1314-62-1)

| | |
|---------------------------------|--|
| LD50 oral rat | 221.1 mg/kg Source: ECHA |
| LD50 dermal rat | > 2500 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity) |
| LC50 Inhalation - Rat (Vapours) | 4.29 mg/l Source: ECHA |

Skin corrosion/irritation : Not classified
pH: 4
Serious eye damage/irritation : Not classified
pH: 4
Respiratory or skin sensitisation : Not classified
Germ cell mutagenicity : Suspected of causing genetic defects.
Carcinogenicity : May cause cancer.

VANADIUM PENTOXIDE (1314-62-1)

| | |
|------------|--------------------------------------|
| IARC group | 2B - Possibly carcinogenic to humans |
|------------|--------------------------------------|

VANADIUM PENTOXIDE (1314-62-1)

| | |
|------------|--------------------------------------|
| IARC group | 2B - Possibly carcinogenic to humans |
|------------|--------------------------------------|

Reproductive toxicity : Suspected of damaging fertility. Suspected of damaging the unborn child. May cause harm to breast-fed children.
STOT-single exposure : May cause respiratory irritation.

VANADIUM PENTOXIDE (1314-62-1)

| | |
|----------------------|-----------------------------------|
| STOT-single exposure | May cause respiratory irritation. |
|----------------------|-----------------------------------|

STOT-repeated exposure : Causes damage to organs (respiratory tract) through prolonged or repeated exposure (inhalation).

VANADIUM PENTOXIDE (1314-62-1)

| | |
|----------------------------|---|
| NOAEL (oral, rat, 90 days) | 16.9 mg/kg bodyweight Animal: rat, Animal sex: male |
|----------------------------|---|

VANADIUM PENTOXIDE (1314-62-1)

| | |
|----------------------------|--|
| NOAEL (oral, rat, 90 days) | 16.9 mg/kg bodyweight Animal: rat, Animal sex: male |
| STOT-repeated exposure | Causes damage to organs (respiratory tract) through prolonged or repeated exposure (inhalation). |

Aspiration hazard : Not classified

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VANADIUM PENTOXIDE (1314-62-1)

| | |
|----------------------|----------------|
| Viscosity, kinematic | Not applicable |
|----------------------|----------------|

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified
Hazardous to the aquatic environment, long-term (chronic) : Toxic to aquatic life with long lasting effects.
Not rapidly degradable

VANADIUM PENTOXIDE (1314-62-1)

| | |
|-----------------|-------------------------|
| LC50 - Fish [1] | 0.693 mg/l Source: ECHA |
|-----------------|-------------------------|

| | |
|----------------------|-------------------------|
| EC50 72h - Algae [1] | 2.907 mg/l Source: ECHA |
|----------------------|-------------------------|

VANADIUM PENTOXIDE (1314-62-1)

| | |
|-----------------|-------------------------|
| LC50 - Fish [1] | 0.693 mg/l Source: ECHA |
|-----------------|-------------------------|

| | |
|----------------------|-------------------------|
| EC50 72h - Algae [1] | 2.907 mg/l Source: ECHA |
|----------------------|-------------------------|

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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HP Code : HP5 - "Specific Target Organ Toxicity (STOT)/Aspiration Toxicity:" waste which can cause specific target organ toxicity either from a single or repeated exposure, or which cause acute toxic effects following aspiration.
HP6 - "Acute Toxicity:" waste which can cause acute toxic effects following oral or dermal administration, or inhalation exposure.
HP7 - "Carcinogenic:" waste which induces cancer or increases its incidence
HP11 - "Mutagenic:" waste which may cause a mutation, that is a permanent change in the amount or structure of the genetic material in a cell.
HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

| ADR | IMDG | IATA | ADN | RID |
|---|---|--|--|---|
| 14.1. UN number or ID number | | | | |
| UN 2862 | UN 2862 | UN 2862 | UN 2862 | UN 2862 |
| 14.2. UN proper shipping name | | | | |
| VANADIUM PENTOXIDE (VANADIUM PENTOXIDE) | VANADIUM PENTOXIDE (VANADIUM PENTOXIDE) | Vanadium pentoxide (VANADIUM PENTOXIDE) | VANADIUM PENTOXIDE (VANADIUM PENTOXIDE) | VANADIUM PENTOXIDE (VANADIUM PENTOXIDE) |
| Transport document description | | | | |
| UN 2862 VANADIUM PENTOXIDE (VANADIUM PENTOXIDE), 6.1, III, (E), ENVIRONMENTALLY HAZARDOUS | UN 2862 VANADIUM PENTOXIDE (VANADIUM PENTOXIDE), 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS | UN 2862 Vanadium pentoxide (VANADIUM PENTOXIDE), 6.1, III, ENVIRONMENTALLY HAZARDOUS | UN 2862 VANADIUM PENTOXIDE (VANADIUM PENTOXIDE), 6.1, III, ENVIRONMENTALLY HAZARDOUS | UN 2862 VANADIUM PENTOXIDE (VANADIUM PENTOXIDE), 6.1, III, ENVIRONMENTALLY HAZARDOUS |
| 14.3. Transport hazard class(es) | | | | |
| 6.1 | 6.1 | 6.1 | 6.1 | 6.1 |
|  |  |  |  |  |
| 14.4. Packing group | | | | |
| III | III | III | III | III |
| 14.5. Environmental hazards | | | | |
| Dangerous for the environment: Yes | Dangerous for the environment: Yes Marine pollutant: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes | Dangerous for the environment: Yes |
| No supplementary information available | | | | |

14.6. Special precautions for user

Overland transport

Classification code (ADR) : T5
Special provisions (ADR) : 600
Limited quantities (ADR) : 5kg
Excepted quantities (ADR) : E1
Packing instructions (ADR) : P002, IBC08, LP02, R001
Special packing provisions (ADR) : B3
Mixed packing provisions (ADR) : MP10
Portable tank and bulk container instructions (ADR) : T1

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Portable tank and bulk container special provisions (ADR) : TP33
Tank code (ADR) : SGAH
Tank special provisions (ADR) : TU15, TE19
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Special provisions for carriage - Bulk (ADR) : VC1, VC2, AP7
Special provisions for carriage - Loading, unloading and handling (ADR) : CV13, CV28
Special provisions for carriage - Operation (ADR) : S9
Hazard identification number (Kemler No.) : 60
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea

Limited quantities (IMDG) : 5 kg
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P002, LP02
IBC packing instructions (IMDG) : IBC08
IBC special provisions (IMDG) : B3
Tank instructions (IMDG) : T1
Tank special provisions (IMDG) : TP33
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-A
Stowage category (IMDG) : A
Properties and observations (IMDG) : Brownish powder. Slightly soluble in water. Toxic if swallowed, by skin contact or by inhalation.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y645
PCA limited quantity max net quantity (IATA) : 10kg
PCA packing instructions (IATA) : 670
PCA max net quantity (IATA) : 100kg
CAO packing instructions (IATA) : 677
CAO max net quantity (IATA) : 200kg
ERG code (IATA) : 6L

Inland waterway transport

Classification code (ADN) : T5
Special provisions (ADN) : 600, 802
Limited quantities (ADN) : 5 kg
Excepted quantities (ADN) : E1
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : T5
Special provisions (RID) : 600
Limited quantities (RID) : 5kg
Excepted quantities (RID) : E1
Packing instructions (RID) : P002, IBC08, LP02, R001
Special packing provisions (RID) : B3
Mixed packing provisions (RID) : MP10
Portable tank and bulk container instructions (RID) : T1
Portable tank and bulk container special provisions (RID) : TP33
Tank codes for RID tanks (RID) : SGAH

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| | |
|---|--------------------|
| Special provisions for RID tanks (RID) | : TU15 |
| Transport category (RID) | : 2 |
| Special provisions for carriage – Bulk (RID) | : VC1, VC2, AP7 |
| Special provisions for carriage - Loading, unloading and handling (RID) | : CW13, CW28, CW31 |
| Colis express (express parcels) (RID) | : CE11 |
| Hazard identification number (RID) | : 60 |

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Not listed on REACH Annex XVII

REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

| | |
|-----|---|
| ADN | European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways |
| ADR | European Agreement concerning the International Carriage of Dangerous Goods by Road |
| ATE | Acute Toxicity Estimate |
| BCF | Bioconcentration factor |
| BLV | Biological limit value |
| BOD | Biochemical oxygen demand (BOD) |
| COD | Chemical oxygen demand (COD) |

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Abbreviations and acronyms:

| | |
|---------|--|
| DMEL | Derived Minimal Effect level |
| DNEL | Derived-No Effect Level |
| EC-No. | European Community number |
| EC50 | Median effective concentration |
| EN | European Standard |
| IARC | International Agency for Research on Cancer |
| IATA | International Air Transport Association |
| IMDG | International Maritime Dangerous Goods |
| LC50 | Median lethal concentration |
| LD50 | Median lethal dose |
| LOAEL | Lowest Observed Adverse Effect Level |
| NOAEC | No-Observed Adverse Effect Concentration |
| NOAEL | No-Observed Adverse Effect Level |
| NOEC | No-Observed Effect Concentration |
| OECD | Organisation for Economic Co-operation and Development |
| OEL | Occupational Exposure Limit |
| PBT | Persistent Bioaccumulative Toxic |
| PNEC | Predicted No-Effect Concentration |
| RID | Regulations concerning the International Carriage of Dangerous Goods by Rail |
| SDS | Safety Data Sheet |
| STP | Sewage treatment plant |
| ThOD | Theoretical oxygen demand (ThOD) |
| TLM | Median Tolerance Limit |
| VOC | Volatile Organic Compounds |
| CAS-No. | Chemical Abstract Service number |
| N.O.S. | Not Otherwise Specified |
| vPvB | Very Persistent and Very Bioaccumulative |
| ED | Endocrine disrupting properties |

Full text of H- and EUH-statements:

| | |
|---------------------------|---|
| Acute Tox. 2 (Inhalation) | Acute toxicity (inhal.), Category 2 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Aquatic Chronic 2 | Hazardous to the aquatic environment – Chronic Hazard, Category 2 |
| Carc. 1B | Carcinogenicity, Category 1B |
| H301 | Toxic if swallowed. |
| H330 | Fatal if inhaled. |
| H335 | May cause respiratory irritation. |
| H341 | Suspected of causing genetic defects. |
| H350 | May cause cancer. |

VANADIUM PENTOXIDE

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

| Full text of H- and EUH-statements: | |
|-------------------------------------|--|
| H361fd | Suspected of damaging fertility. Suspected of damaging the unborn child. |
| H362 | May cause harm to breast-fed children. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| H411 | Toxic to aquatic life with long lasting effects. |
| Lact. | Reproductive toxicity, Additional category, Effects on or via lactation |
| Muta. 2 | Germ cell mutagenicity, Category 2 |
| Repr. 2 | Reproductive toxicity, Category 2 |
| STOT RE 1 | Specific target organ toxicity – Repeated exposure, Category 1 |
| STOT SE 3 | Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation |

The classification complies with : ATP 12

Safety Data Sheet (SDS)_EMAL, EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.