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

1.1. PRODUCT IDENTIFIER

Product name	Wolf Flow Destainer Low Temp
Product number	7524/23301
UFI	UFI: GRSR-TWSX-U10Y-4520

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

Identified uses	Bleach

1.3. Details of the supplier of the safety data sheet

Supplier	Wolf Laundry Ltd Unit 5B, Ashroyd Business Park, Platts Common, Barnsley South Yorkshire S74 9SB Tel: 0808 500 8043 info@wolflaundry.co.uk

1.4. Emergency telephone number

Emergency telephone	Wolf Laundry Ltd: Tel: 0808 500 8043 (Mon - Fri 8am-6pm)
National emergency telephone number	NHS Direct 111 (GB) National Poisons Information Service Tel: +44 344 892 0111 (UK) - Medical Professionals Only National Poisons Information Centre Tel: +353 (01) 809 2566 (Ireland) - Healthcare Professionals only (24 hour service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (SI 2019 No. 720)

Physical hazards	Not Classified
Health hazards	Eye Irrit. 2 - H319
Environmental hazards	Not Classified

2.2. Label elements

Hazard pictograms

Signal word	Warning
Hazard statements	H319 Causes serious eye irritation.
Precautionary statements	P264 Wash contaminated skin thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313 If eye irritation persists: Get medical advice/ attention.
Detergent labelling	15 - < 30% oxygen-based bleaching agents, < 5% phosphonates
Supplementary precautionary statements	P310 Immediately call a POISON CENTER/ doctor. P410 Protect from sunlight. P420 Store separately.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

6-(PHTHALIMIDO)PEROXYHEXANOIC ACID	15-30%
CAS number: 128275-31-0	EC number: 410-850-8
M factor (Acute) = 1	

Classification
Org. Perox. D - H242
Eye Dam. 1 - H318
Aquatic Acute 1 - H400

1,1-Hydroxy-ethyliden diphosphonic acid disodium salt	1-3%
CAS number: 7414-83-7	EC number: 231-025-7

Classification
Acute Tox. 4 - H302

The full text for all hazard statements is displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Get medical attention if symptoms are severe or persist. Remove affected person from source of contamination.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Seek medical attention if any discomfort continues.
Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Give milk instead of water if readily available. Get medical attention immediately.
Skin contact	Remove affected person from source of contamination. Remove contaminated clothing and rinse skin thoroughly with water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention immediately. Continue to rinse.

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

General information	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation	Irritation of nose, throat and airway.
Ingestion	Nausea, vomiting. Diarrhoea. May cause stomach pain or vomiting.
Skin contact	Prolonged contact may cause redness, irritation and dry skin.
Eye contact	This product is strongly irritating.

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

Notes for the doctor	Treat symptomatically.

SECTION 5: Fire fighting measures

5.1. Extinguishing media

Suitable extinguishing media	The product is not flammable. Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Oxygen released in thermal decomposition may support combustion. Contact with combustible material may cause fire.
Hazardous combustion products	Thermal decomposition or combustion products may include the following substances: Oxygen.

5.3. Advice for firefighters

Protective actions during firefighting	Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. If risk of water pollution occurs, notify appropriate authorities. Control run-off water by containing and keeping it out of sewers and watercourses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Wear protective clothing as described in Section 8 of this safety data sheet. Avoid inhalation of vapours and contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions	Avoid release to the environment. Do not flush into surface water or sanitary sewer system. Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing orapron, as appropriate. Collect spilled liquid in plastic container (NOT METAL). Never return to original tank/container. Flush away small residues with excess water. Contain spillage but do not absorb in sawdust or other combustible material. If substance has entered water course or sewer, advise police. Inform authorities if large amounts are involved.

6.4. Reference to other sections

Reference to other sections	Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions	Keep away from heat, sparks and open flame. Avoid spilling. Use approved respirator if air contamination is above an acceptable level. Avoid contact with the following materials: Acids. Moisture. Cleanliness is essential as any contamination may cause decomposition. Never return unused material to original containers. Eye wash facilities and emergency shower must be available when handling this product. Do not expose to temperatures exceeding 50°C/122°F.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions	Keep only in the original container. Keep away from flammable and combustible materials. Keep away from heat, sparks and open flame. Store cool. Protect from light. Unsuitable containers: copper, zinc, aluminium, copper alloy, zinc alloy, aluminium alloy.
Storage class	Chemical storage.

7.3. Specific end use(s)

Specific end use(s)	The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Long-term exposure limit (8-hour TWA): 3 mg/m³

8.2. Exposure controls

Protective equipment


Appropriate engineering controls	Provide adequate general and local exhaust ventilation. As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas gas, vapour or mist.
Eye/face protection	Safety glasses with side-shields (EN 166).
Hand protection	Chemical resistant PVC/Nitrilrubber gloves (to European standard EN 374 or equivalent). Thickness: 0,4mm Penetration time: >480 min (level 6). The selection of specific gloves for a specific application and time of use in a working area, should also take into account other factors on the working space, such as (but not limited to): other chemicals that are possibly used, physical requirements (protection against cutting/ drilling, skill, thermal protection), and the instructions/specification of the supplier of gloves.
Other skin and body protection	Wear suitable protective clothing (EN14605)
Hygiene measures	Provide eyewash station and safety shower. Do not eat, drink or smoke when using this product. Avoid contact with skin and eyes.
Respiratory protection	In the case of dust or aerosol formation, use respirator with an approved filter. Recommended Filter type: ABEK-P2

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	White/off-white.
Odour	No characteristic odour.
pH	pH (concentrated solution): 2.8-3.8 (100 %) pH (diluted solution): 6.2-7.2 1%
Melting point	75°C
Initial boiling point and range	No specific test data are available.
Flash point	No specific test data are available.
Evaporation rate	No specific test data are available.
Flammability (solid, gas)	Not applicable.
Vapour pressure	No specific test data are available.
Vapour density	No specific test data are available.
Relative density	1.00-1.10 @ 23°C
Bulk density	Not applicable.
Solubility(ies)	Soluble in water.
Partition coefficient	log Pow: 2.2
Auto-ignition temperature	470°C
Decomposition Temperature	>80°C
Viscosity	700 mPa s @ 25°C
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	The following materials may react with the product: Organic peroxides/hydroperoxides. Oxidising materials. Strong reducing agents. Will decompose at temperatures exceeding 80°C.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended. Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Contact with combustible material may cause fire

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Avoid direct sunlight. Decomposition starts at 80°C with release of oxygen; avoid temperatures above 50°C.

10.5. Incompatible materials

Materials to avoid	Strong acids. Strong alkalis. Metals, salts of metals, organic materials, flammable substances Combustible materials. Reducing Agents Strong oxidising agents. Carbamates. Dithiocarbamates. Mercaptans (thiols). In organic sulphides. Nitriles and organic sulphides.

10.6. Hazardous decomposition products

Hazardous decomposition products	Rapid decomposition will release large quantities of oxygen (health and fire risk). Decomposition is exothermic causing temperature rise which will further increase the rate of decomposition creating explosive situations. On decomposition irritating gases, vapours and oxygen are released. Decomposition will not occur if product is stored and used correctly.

SECTION 11: Toxiclogical information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD_{50})	Based on available data the classification criteria are not met.
ATE oral (mg/kg)	25,000.0

Acute toxicity - dermal

Notes (dermal LD_{50})	Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC_{50})	Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation	May cause skin irritation.

Serious eye damage/irritation

Serious eye damage/irritation	Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation	Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation	Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro	Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity	Based on available data the classification criteria are not met.
IARC carcinogenicity	None of the ingredients are listed or exempt.

Reproductive toxicity

Reproductive toxicity - fertility	Based on available data the classification criteria are not met.
Reproductive toxicity - development	Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure	Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard

Aspiration hazard	Based on available data the classification criteria are not met.

Inhalation	May cause respiratory system irritation. Vapours may irritate throat/respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	May cause severe internal injury. May cause stomach pain or vomiting. May cause chemical burns in mouth, oesophagus and stomach.
Skin contact	May cause skin irritation. Prolonged or repeated contact with skin may cause irritation, redness and dermatitis.
Eye contact	This product is strongly irritating. A single exposure may cause the following adverse effects: Corneal damage. Irritation, burning, lachrymation, blurred vision after liquid splash.
Route of exposure	Skin and/or eye contact Ingestion Inhalation

Toxicological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	2,550.0
Species	Rat
Notes (oral LD_{50})	The product has a low acute toxicity
ATE oral (mg/kg)	2,550.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,001.0
Species	Rat
Notes (dermal LD_{50})	Not classified as hazardous for acute dermal toxicity according to GHS
ATE dermal (mg/kg)	2,001.0

Skin corrosion/irritation

Skin corrosion/irritation	Not classified as irritating to skin (Method: OECD Test Guideline 404)

Serious eye damage/irritation

Serious eye damage/irritation	Irritating to eyes (Method: Isolated Chicken Eye Test)

Skin sensitisation

Skin sensitisation	Does not cause skin sensitisation (Method: OECD Test Guideline 406)

Germ cell mutagenicity

Genotoxicity - in vitro	In vitro tests did not show mutagenic effects

Genotoxicity - in vivo	Animal testing did not show any mutagenic effects
Carcinogenicity	
Carcinogenicity	Not available.
Reproductive toxicity	
Reproductive toxicity - fertility	Fertility - NOAEL 30 mg/kg, Oral, Rat The product is not considered to affect fertility.
Reproductive toxicity - development	Maternal toxicity: - NOAEL: 50 mg/kg, , Rabbit Teratogenicity: - NOAEL: 100 mg/kg, Rabbit. The product is not considered to be teratogenic.
Specific target organ toxicity - single exposure	
STOT - single exposure	Not classified as a specific target organ toxicant after a single exposure.
Specific target organ toxicity - repeated exposure	
STOT - repeated exposure	NOAEL 100 mg/kg, , Rat Not classified as a specific target organ toxicant after repeated exposure.
Aspiration hazard	
Aspiration hazard	Not applicable

1,1-Hydroxy-ethyliden diphosphonic acid disodium salt

Acute toxicity - oral	
ATE oral (mg/kg)	500.0

SECTION 12: Ecological information

Ecotoxicity: The product may affect the acidity (pH) of water which may have hazardous effects on aquatic organisms.

12.1. Toxicity

Toxicity: Not considered toxic to fish.

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Acute aquatic toxicity	
$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.4 mg/l, Brachydanio rerio (Zebra Fish)
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 17.6 mg/l, Daphnia magna
Acute toxicity - aquatic plants	ErC50, 72 hours: 2.6 mg/l, Pseudokirchneriella subcapitata NOEC, 72 hours: 2.6 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC_{50}, : 100 mg/l, Bacteria
Acute toxicity - terrestrial	LC_{50}, 14 days: 491.69 mg/kg, Eisenia Fetida (Earthworm) EC_{50}, 14 days: > 100 mg/kg, Avena sativa (oats)
Chronic aquatic toxicity	
Chronic toxicity - fish early life stage	NOEC, 96 hours: 0.1 mg/l, Brachydanio rerio (Zebra Fish)

12.2. Persistence and degradability

Persistence and degradability: Readily biodegradable.

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Persistence and degradability	The product is considered to be rapidly degradable in the environment
Biodegradation	The substance fulfils the criteria for ultimate aerobic biodegradability and ready biodegradability
Biological oxygen demand	89%

12.3. Bioaccumulative potential

Bioaccumulative potential	The product does not contain any substances expected to be bioaccumulating.
Partition coefficient	log Pow: 2.2

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Bioaccumulative potential	No potential for bioaccumulation.

12.4. Mobility in soil

Mobility	Soluble in water.

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Adsorption/desorption coefficient	Soil - Log Koc: 1.916 @ °C

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Results of PBT and vPvB assessment	This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects	None known.

Ecological information on ingredients. 6-(PHTHALIMIDO)PEROXYHEXANOIC ACID

Other adverse effects	Short-term (acute) aquatic hazard: Very toxic to aquatic life. Long-term (chronic) aquatic hazard: Harmful to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods	Dispose of in accordance with Local Authority regulations as special waste according to The Control of Special Waste Regulations 1996.
EURAL Code	

SECTION 14: Transport Information

General	The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID). Not regulated.

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Transport labels

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Not applicable.

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

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

SECTION 15: Regulartory information

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

Danish product registration number

Danish national regulations

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

None of the ingredients are listed or exempt.

SECTION 16: Other information

Revision comments	Revision is due to addition of UFI number Change is due to new classification information.
Revision date	17/09/2021
Revision	6
Supersedes date	12/02/2019
SDS number	7524/23301
Hazard statements in full	H242 Heating may cause a fire. H302 Harmful if swallowed. H318 Causes serious eye damage. H319 Causes serious eye irritation. H400 Very toxic to aquatic life.