

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Trade name: Granular Gaseous Technical Sulphur
Name of the Substance: Sulfur
EC No.: 231-722-6
CAS No.: 7704-34-9
Index No.: 016-094-00-1
REACH Registration No.: 01-2119487295-27-0005

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

Relevant identified uses: feedstock in chemical industry.
Uses advised against: no other use is recommended.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Public Company *ORLEN Lietuva*
Juodeikiai, LT-89453 Mažeikiai District, Lithuania
Tel.: +370 443 92121
E-mail address: post@orlenlietuva.lt

1.4. Emergency telephone number

Poison Information Bureau. In case of poisoning (24/7): +370 52 362052 or +370 687 53378
General helpline number in Europe (24/7): 112

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (CLP)
Skin Irrit. 2, H315
For the full text of Hazard Statements: see SECTION 16.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 (CLP)
Signal word: WARNING
Hazard pictogram:



GHS07

Hazard Statements:

H315: Causes skin irritation.

Precautionary statements:

P280: Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352: IF ON SKIN: Wash with plenty of soap and water.

P332+P313: If skin irritation occurs: Get medical advice/attention.

2.3. Other hazards

Does not contain any substances assessed to be a PBT or a vPvB or having endocrine disrupting properties with concentration equal to or greater than 0.1 %.
Sulphur is solid combustible material which is attributed to products of low hazard when at ambient temperature and normal conditions. Finely dispersed sulphur particles may form explosive mixtures in air.



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Sulphur dust irritates mucous membrane of respiratory tract and eyes, and the skin. Ingestion may cause digestive tract diseases.
Burning sulphur emits toxic sulphur dioxide (SO₂).
Low environment hazard at ambient temperature. Hazard of soil and ground water contamination.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Trade name: Granular Gaseous Technical Sulphur

Substance Name	Concentration, %	Labelling according to CLP Regulation
Sulfur EC No.: 231-722-6 CAS No.: 7704-34-9 Index No.: 016-094-00-1 REACH Registration No.: 01-2119487295-27-0005	100	Skin Irrit. 2, H315

Contains substances for which workplace exposure limit value is established.
Occupational exposure limits, if available, are listed in SECTION 8.
For full text of H-statements, see SECTION 16.

3.2. Mixtures

Not applicable.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Solid sulfur is flammable. Burning sulphur emits toxic and suffocating sulfur dioxide (SO₂). Finely dispersed particles form explosive mixtures in air. Liquid sulfur can cause thermal burns.

Inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If the casualty is unconscious and:

- Not breathing – ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical assistance.
- Breathing – place in the recovery position. Administer oxygen if necessary. Obtain medical assistance if breathing remains difficult.

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve.

If there is any suspicion of inhalation of SO₂:

- Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Remove casualty to fresh air as quickly as possible.
- Immediately begin artificial respiration if breathing has ceased. Provision of oxygen may help.
- Obtain medical advice for further treatment.

Skin Contact

Immediately remove contaminated clothing and footwear and dispose of safely. Wash affected area thoroughly with soap and water. Seek medical attention if skin irritation, swelling or redness occurs. For minor thermal burns: Cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. However, body hypothermia must be avoided.

Do not put ice on the burn. Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them. Seek medical attention in all cases of serious burns.

Eye Contact

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Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If dust particles remain in the eye, do not rub the eye as mechanical abrasion due to the dust may damage the cornea. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water. Immediately obtain specialist medical assessment and treatment for the casualty.

Ingestion

In contact with mouth, wash out with plenty of water. Except as deliberate acts, ingestion of large amounts of sulphur is unlikely. DO NOT induce vomiting. Get medical assistance.

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

Inhalation of sulphur dust may cause irritation of the upper respiratory tract.

Skin and eye contact – irritation (product at ambient temperature). May cause burn in case of contact with product at high temperature.

Ingestion – light laxative effect.

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

Treatment according to symptoms

SECTION 5: FIREFIGHTING MEASURES**Flammability**

Dust clouds may present an explosion hazard. They may be ignited by heat, sparks, static electricity or flames. The flames generated by the burning product are short, dark blue colored at night and invisible in the daylight, with the exception of the fume and the heat. The burning material acquires a dark red-black colour.

5.1. Extinguishing media**Suitable extinguishing media:**

- Foam (specifically trained personnel only),
- Water fog (specifically trained personnel only),
- Dry chemical powder,
- Carbon dioxide,
- Inert gases (subject to regulations),
- Sand or earth,
- Steam.

Unsuitable extinguishing media:

Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture**Combustion Products**

Combustion products include sulphur oxide (SO₂).

Specific Hazards

Whereas burning sulphur emits toxic gas which irritates mucous membrane of respiratory tract and eyes, do not come close to the source of fire without suitable breathing apparatus. Burning sulphur in railway cars and storage facilities should be extinguished with water at a safe distance. Nearest building and area evacuation should be arranged considering toxic burning sulphur products movement direction.

5.3. Advice for firefighters

In case of a large fire or in confined or poorly ventilated spaces wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: ACCIDENTAL RELEASE MEASURES**6.1. Personal precautions, protective equipment and emergency procedures****6.1.1. For non-emergency personnel**

Stop or contain leak at the source, if safe to do so. Prevent generation and spreading of dust. Avoid direct contact with released material. Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. It is recommended to eliminate all ignition sources, if safe to do so (e.g. electricity, sparks, fires, flares).

When the presence of dangerous gases around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training.

If required, notify relevant authorities according to all applicable regulations.

6.1.2. For emergency responders

Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material.

Work gloves providing adequate chemical resistance. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated.

NOTE: Gloves made of PVA are not water-resistant, and are not suitable for emergency use.

Work helmet. Antistatic non-skid safety shoes or boots. Closed goggles. Face shield, if contact of hot product or vapors with eyes is possible or anticipated.

Respiratory protection: a half mask with dust filter, a full face respirator with filter(s) for organic vapours, SO₂ and H₂S, or a Self Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

As sulphur is flammable, any leakage or spill in dust form creates a fire hazard in case of presence of ignition sources. Finely dispersed sulphur particles may form explosive mixtures in air.

6.2. Environmental precautions**Spillages onto Land**

Prevent product from entering sewers, rivers or other bodies of water. Leaks and spillages of molten sulphur cause the risk of severe burns.

NOTE: Solidified product may clog drains and sewers.

If necessary dike the molten product with earth, sand or similar non-combustible materials. Let molten sulphur cool naturally. If necessary, cautiously use water fog to help the cooling. Do not play direct jets of water on the spilled molten product, as this may cause splattering.

When inside buildings or confined spaces, ensure adequate ventilation.

Spillages on water or at sea

The product in solid form is heavier than water, and normally no intervention will be possible. Fine dust may momentarily float. If possible, control the spreading of the solid sulphur dust by suitable mechanical means. In case of spillages of molten sulphur in the water, the product will cool down rapidly, become solid and sink to the bottom.

6.3. Methods and material for containment and cleaning up**Spillages onto Land**

Collect free product with suitable mechanical means. Collect recovered product and other contaminated materials in suitable containers for recycle, recovery or safe disposal.

Spillages on Water or at Sea

Collect the solid sulphur dust by skimming or other suitable mechanical means. Do not use solvents or dispersants, unless specifically advised by an expert, and, if required, approved by local authorities. Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal.

Additional information

NOTE: recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may

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significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. In those cases when the presence of dangerous amounts of gases around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special equipment for detection and personal protection, procedures and personnel training.

6.4. Reference to other sections

See SECTION 8 for Exposure controls/personal protection. See SECTION 13 for Disposal considerations.

SECTION 7: HANDLING AND STORAGE**7.1. Precautions for safe handling**

Avoid release to the environment. When handling, risk of explosive mixtures of dusts and air. Ensure that all relevant regulations regarding explosive atmospheres, and handling and storage facilities of flammable products, are followed. Keep away from heat/sparks/open flames/hot surfaces. No smoking.

A specific assessment of inhalation risks from the presence of sulfur dioxide (SO₂) in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases must be made to help determine controls appropriate to local circumstances.

Use only outdoors or in a well-ventilated area. Avoid contact with the product, namely when in the molten form.

7.2. Conditions for safe storage, including any incompatibilities**Handling**

Handle only in areas away from potential ignition sources, therefore take precautionary measures against static electricity. Ground/bond container and receiving equipment. Transfer equipment must be designed in a manner that minimizes the airborne dust.

Avoid skin and eye contact. Do not breathe dusts of product. Use personal protective equipment as required.

Storage

Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Store in facilities designed for flammable solid or liquid material storage.

Cleaning, inspection and maintenance of internal structure of storage equipment must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Before entering storage tanks and commencing any operation in a confined area, check the atmosphere for oxygen content, SO₂, and flammability.

Store separately from oxidizing agents.

Recommended and Unsuitable Materials for Storage

Recommended materials: Solid sulfur: carbon steel. Liquid sulfur: carbon steel and concrete. Acid-resistant internal coating is recommended for containments and storage spaces. Hulls of sea carriers for the transport of solid sulfur should be either coated or lime washed. Compatibility should be checked with the manufacturer.

Unsuitable materials: Some synthetic materials may be unsuitable for containers (tanks) or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.

Container Advice

Keep only in the original container or cargo container designed for this kind of product. Cargo container shall be tightly closed and properly labeled.

Empty cargo container may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty cargo container, unless they have been properly cleaned.

Hygiene measures

Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplace and should never be kept inside the pockets. Keep away



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from food and beverages. Do not eat, drink or smoke while using this product. Wash the hands thoroughly after handling. Change contaminated clothes at the end of working shift.

7.3. Specific end use(s)

Product is used as a fuel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Substances for which occupational exposure limit values need to be controlled in the work environment:

Sulfur, CAS No. 7704-34-9

Lithuanian Hygiene Standard HN 23:2011:

Substance Name	CAS No.	Limit value						Markers of health effects	Note
		Long-term exposure limit value (LTEL)		Short-term exposure limit value (STEL)		Threshold Limit Value (TLV)			
		mg/m ³	ppm	mg/m ³	ppm	mg/m ³	ppm		
Sulfur	7704-34-9	6	-	-	-	-	-	Fibrogenic effect	Lithuanian Hygiene Standard HN 23:2011

Exposure Limits

Comply with established national occupational exposure limits. Where not established, the following short-term exposure limit is recommended – 6 mg/m³.

Substance: Sulfur CAS No. 7704-34-9					
State	Limit value – Eight hours		Limit value – Short term		Legal basis
	ppm	mg/m ³	ppm	mg/m ³	
Latvia		6			Source: GESTIS International Limit Value Database
Romania				15 ⁽¹⁾⁽²⁾	Source: GESTIS International Limit Value Database
Remarks					
Romania	⁽¹⁾ Dust. ⁽²⁾ 15 minutes average value				

Biological limit values (BLV)

No biological limit value has been established for this substance.

Recommended monitoring procedures

Standard monitoring procedures must be followed.

Follow the monitoring measures applied in the country.

Derived No Effect Level DNEL

Derived No Effect Level (DNEL) or other conclusions of hazardous health effects:

Route of exposure	Type of exposure	Hazard assessment conclusion	Most sensitive endpoint
Workers			
Systemic effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	

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Dermal	Long term exposure	No hazard identified	
Dermal	Acute/short term exposure	No hazard identified	
Local effects			
Inhalation	Long term exposure	No hazard identified	
Inhalation	Acute/short term exposure	No hazard identified	
Dermal	Long term exposure	Low hazard (no threshold derived)	
Dermal	Acute/short term exposure	Low hazard (no threshold derived)	
Eyes	Local effects	No hazard identified	
General Population			
Systemic effects			
Inhalation	Long term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Inhalation	Acute/short term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Dermal	Long term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Dermal	Acute/short term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Oral	Long term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Oral	Acute/short term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Local effects			
Inhalation	Long term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Inhalation	Acute/short term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Dermal	Long term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Dermal	Acute/short term exposure	Hazard unknown but no further hazard information necessary as no exposure expected	
Eyes	Local effects	Hazard unknown but no further hazard information necessary as no exposure expected	

Predicted No Effect Concentrations PNEC

Substance is a hydrocarbon UVCB: technically, the PNEC is not determined or cannot be determined.

8.2. Exposure controls

8.2.1. Appropriate engineering controls

At ambient temperature sulphur evolves small amounts of toxic dust and gas. However, during granular sulphur transfer, sulphur dust may be generated. In case of fire, toxic SO₂ gas is emitted. Toxic material concentrations in the air of working environment should be controlled to the minimum allowed limit.

8.2.2. Individual protection measures, such as personal protective equipment

a) Eye/face protection

Wear safety glasses in circumstances where eye contact with product or its dust may occur (e.g. acc. to EN166).

b) Skin protection

i) Hand protection

Acid-resistant gloves (e.g. acc. to EN388, EN374-2, EN374-3). Check before use. Use only with clean hands. Contaminated gloves should be replaced. Always seek advice from glove suppliers for use, storage, care and replacement of gloves.

ii) Other

Wear protective clothes (e.g. acc. to EN11612, EN1149-5) and other protection equipment. Protective clothing should be regularly inspected and maintained.

Heat and acid resistant clothes and boots should be worn to avoid thermal burns when handling molten hot sulphur. Cover your face, head and neck. Protective clothing and equipment should be regularly inspected and maintained.

c) Respiratory protection

If during operations the exposure to dust inevitable, then suitable respiratory protective equipment, such as protective respirator or B filtering mask against SO₂ and H₂S and sulphur dust (e.g. acc. to EN141) should be worn. Respiratory protection equipment should be selected and used in accordance with the manufacturer's instructions and requirements established by the law.

d) Thermal hazards

If applicable, use heat-resistant personal protective equipment.

Hygiene measures

Comply with personal hygiene requirements. Wash hands before breaks and after work. Wash immediately in case of skin contact.

8.2.3. Environmental exposure controls

To ensure the compliance of ventilation and process equipment with requirements of environmental legislation, emissions of such equipment are subject to verification.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Physical state	Solid
b) Colour	Yellow
c) Odour	Typical odour
d) Melting point/freezing point	119 °C
e) Boiling point or initial boiling point and boiling range	444 °C
f) Flammability	Not classified as flammable
g) Lower and upper explosion limit	Not classified as explosive
	Not applicable
h) Flash point	190 °C
i) Auto-ignition temperature	Not applicable
j) Decomposition temperature	Not applicable
k) pH	Not applicable
l) Kinematic viscosity	Not applicable
m) Solubility	Not applicable
n) Partition coefficient n-octanol/water (log value)	Not applicable



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- o) Vapour pressure
p) Density and/or relative density

Liquid 1.79 g/cm³.
Solid 2.10 g/cm³ (at 20 °C)
Not applicable
Not identified

- q) Relative vapour density
r) Particle characteristics

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Dust clouds may present an explosion hazard. Sulphur dust explosive concentration in air > 17 g/m³.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

10.2. Chemical stability

Stable at ambient temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

High ambient temperature.
Avoid all open and potential sources of ignition.

10.5. Incompatible materials

Avoid contact with strong oxidizing agents.

10.6. Hazardous decomposition products

Burning sulphur emits toxic sulphur dioxide which may build-up of dangerous concentrations in ambient air, especially in confined spaces.

SECTION 11: TOXICOLOGICAL INFORMATION

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

- a) acute toxicity

Not classified for acute oral toxicity based on an oral LD₅₀ > 2000 mg/kg bw (test method OECD 401).

Not classified for acute inhalation toxicity. LC₅₀ (4 hour) value was higher than 5.43 g/m³ (test method equivalent or similar to OECD 403).

Not classified for acute dermal toxicity based on a dermal LD₅₀ of > 2000 mg/kg body weight (test method OECD 402).

b) skin corrosion/irritation

Classified as irritating to the skin, Cat. 2, H315: Causes skin irritation. Test method equivalent or similar to OECD 404.

- c) serious eye damage/irritation

Does not meet the classification criteria based on available data. Test method OECD 405.

- d) respiratory or skin sensitisation

Does not meet the classification criteria based on available data (test method OECD 406).

- e) germ cell mutagenicity

Does not meet the classification criteria based on available data (weight of evidence approach).

- f) carcinogenicity

Does not meet the classification criteria based on available data (weight of evidence approach).

- g) reproductive toxicity

Does not meet the classification criteria based on available data (weight of evidence approach).



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h) STOT-single exposure

Does not meet the classification criteria based on available data (weight of evidence approach).

i) STOT-repeated exposure

Does not meet the classification criteria based on available data (weight of evidence approach).

j) aspiration hazard

Does not meet the classification criteria based on available data (weight of evidence approach).

Symptoms related to the physical, chemical and toxicological characteristics, delayed and immediate effects as well as chronic effects from short and long-term exposure

Sulphur dust is irritating to eyes, mucous membrane of respiratory tract and skin, causes eye irritation and redness, coughing, and skin dryness. If hot molten product is splashed into the eyes or on skin, it may cause thermal burns. Except for deliberate acts, ingestion of large amounts of sulphur is unlikely.

Repeated or prolonged contact with sulphur and dust may cause skin redness, dermatitis. Prolonged exposure to sulphur dust may cause eye inflammation and pneumonia.

NOTE: Product handling at normal conditions is not subject to toxicity.

11.2 Information on other hazards

Endocrine disrupting properties

Not applicable. The substance is not considered an endocrine disruptor.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Not classified as hazardous to the aquatic environment.

Tests does not need to be conducted as aquatic toxicity is unlikely to occur as the substance is highly insoluble in water.

12.2. Persistence and degradability

Non-biodegradable. In normal conditions, the product is not mobile and therefore remains in the same location.

12.3. Bioaccumulative potential

No potential for bioaccumulation

12.4. Mobility in soil

According to its physical properties granular sulphur is not mobile; therefore it stays on the surface of soil. Sinks in water.

12.5. Results of PBT and vPvB assessment

This substance does not contain constituents included in the SVHC candidate list as PBT/vPvB at concentrations above 0.1%.

12.6. Endocrine disrupting properties

This material does not contain any hydrocarbon structures that have been identified as having endocrine disrupting properties at concentrations equal to or greater than 0.1%.

12.7. Other adverse effects

No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste is disposed of by decontamination in accordance with national requirements and local regulations or via a licensed waste disposal contractor. Identify the hazards of waste handling and undertake required safety measures. Personal protective equipment is necessary for personnel involved in waste disposal.



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Empty containers or cargo containers may contain some remaining sulfur; therefore, hazard-warning labels are to be retained as a guide to the safe container handling and waste disposal.

SECTION 14: TRANSPORT INFORMATION

NOTE: Granular Gaseous Technical Sulphur in **ADR, RID, IMDG, IATA** systems is not classified as hazardous cargo, when it has been formed to a specific shape (e. g. granules, pellets, pastilles or flakes).

SECTION 15: REGULATORY INFORMATION

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

Relevant EU/international legislations:

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (CLP)

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

Council Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 (REACH)

Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste

Directive 2012/18/EU of the European Parliament and of the Council of 4 July 2012 on the control of major-accident hazards involving dangerous substances

Council Directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work

Council Directive 89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work

European Agreement on the International Carriage of Dangerous Goods by Road / Waterways (ADR / MDG)

European Agreement on the International Carriage of Dangerous Goods by Air (IATA)

2000/532/EC: Commission Decision of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes

Regulation (EC) No 1907/2006 (REACH):

SVHC (Candidate List of substances of very high concern for Authorisation): Not applicable

REACH Annex XIV (Authorisation List): Not applicable

REACH Annex XVII (Substances restricted under REACH): Not applicable

Regulation (EU) No 649/2012 (PIC): Not applicable

Regulation (EC) No 850/2004 (POT): Not applicable

Regulation (EC) No 1107/2009 (Plant protection products): Not applicable

Regulation (EU) No 528/2012 (Biocidal products): Not applicable

Regulation (EC) No 648/2004 (Detergents): Not applicable

Regulation (EC) No 1005/2009 (OSAM): Not applicable

Directive 2004/37/EC (related to exposure to carcinogens or mutagens at work): Not applicable

Note: Any subsequent updates, amendments and/or additions to the legislation should be duly considered. The list of legal acts is not exhaustive.



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15.2. Chemical safety assessment

Chemical safety assessment has been conducted.

SECTION 16: OTHER INFORMATION

Revision of safety data sheet: 2022-12-20

Revised: all sections.

During the review of the SDS, the data presented were clarified and arranged in accordance with the European Commission Regulation (EU) No. 2020/878 requirements.

Abbreviations and acronyms:

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	Agreement concerning the International Carriage of Dangerous Goods by Road
BLV	Biological limit values
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures
DNEL	Derived No-Effect Level
EC	EINECS (European Inventory of Existing Commercial Chemical Substances) or ELINCS (European List of Notified Chemical Substances)
EL ₅₀	Effective loading rate resulting in 50% effect
EmS	Emergency Response Procedures for Ships Carrying Dangerous Goods
EN	European standard of European Committee for Standardization
ErL ₅₀	Loading Rate of Test Substance (in dilution water) which causes 50% reduction in algal growth rate
EU	European Union
IATA	International Air Transport Association
IBC	Intermediate bulk container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
IMO	International Maritime Organization
JT	United Nations
LC ₅₀	Lethal concentration for 50 % percent of test organisms
LD ₅₀	Lethal dose for 50 % of test organisms (median lethal dose)
LL ₅₀	Lethal load for 50 % of the test organisms
LR	Republic of Lithuania
LTEL	Long-term exposure limit value
NOAEC	No observed adverse effect concentration
NOAEL	No observed adverse effect level
NOEL	Non observed effect level
OECD	Organization for Economic Cooperation and Development
PBT	Persistent, bioaccumulative and toxic
PNEC	Predicted no-effect concentration
RCR	Risk characterization ratio
RID	The Regulation concerning the International Carriage of Dangerous Goods by Rail
RTDG	Recommendations on the Transport of Dangerous Goods
REACH	Regulation concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL	Short-term exposure limit value
STOT	Specific target organ toxicity
UFI	Unique Formula Identifier
UVCB	Substance of unknown or variable composition, complex reaction products or biological materials



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vPvB very Persistent and very Bioaccumulative

Full text of Hazard Statements:

H315: Causes skin irritation.

Key literature references and sources for data

Registration documentation

Publicly available data from the national limit value databases of the European Chemicals Agency (ECHA), The GESTIS International Limit values Database.

Training advice

Employees/users must be trained/familiarized with the relevant safety information provided.

Do not use the product for any purposes other than indicated in the manufacturer's information.

During such use the user may be exposed to unforeseen hazards.

Should you have any questions or doubts regarding SDS, its contents or any other concerns related to safety of the product, please contact us by e mail: post@orlenlietuva.lt

NOTE: Information provided herein is considered to be accurate as of the date specified below. No warranty is made as to the accuracy or completeness of the data and information provided in this MSDS. Information provided herein serves only as guidelines for safe work, use, processing, storage, and waste handling. It cannot be considered as a warranty or statement of quality. This information applies only to the specific product and may not be suitable for use of the product in combination with any other substances or in any other manner contrary to that described in this document.

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