

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□ REACH □□ (EC) 1907/2006 □□ □□

- □□ (CLP) : H301+H331 - □□□□ □□□□ □□□□□.
- H373 - □□□ □□ □□ □□□□ □□□ □□□ □□□ □□□.
- H410 - □□□ □□□ □□ □□□□□□ □□ □□□□.
- □□ □□(CLP) : P260 - □□·□·□·□□·□□·□□□□ □(□) □□□□ □□□□.
- P264 - □□ □□□ □, □□ □ □□ □(□) □□□ □□□□.
- P273 - □□□□ □□□□ □□□□.
- P301+P310 - □□□□ □□ □□ □□ □□ □□ □□ □(□) □□□□□.
- P304+P340 - □□□□ □□□ □□□ □□ □□□ □□□ □□ □□□ □□□ □□□□.

2.3. □□ □□

□□ □□

□□ 3: □□□□□ □□ □ □□□

3.1. □□□□

□□ □□ : □□□□□□

□□	□□□□	%
SELENIUM DIOXIDE (SUBLIMED)	CAS □□: 7446-08-4 EC □□: 231-194-7 EC □□ □□: 034-002-00-8	100

□□ 4: □□□□□□

4.1. □□□□ □□

- □□ □□ : Call a physician immediately.
- □□ : □□□ □□□ □□ □□□ □□□□ □□ □□□ □□□ □□□□. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice. Call a doctor.
- □□□□ □□ : □□□ □□□ □□ □□□□ □□□□□□. □□ □□□ □□□□: □□□□ □□/□□□□ □□□□. Wash skin with plenty of water.
- □□□□ □□ : □□□□ □□□□□□ □□□□□□. □□ □□□□. □ □□ □□ □□□□ □□□□□. □□ □□□ □□□□□: □□□ □ □□/□□□ □□□□.
- □□ : □□ □□□□□. Obtain emergency medical attention. □□ □□□□/□□□ □□□ □□□□□. □□ □□□ □□□.
- Self protection of the first-aider : □□□□ □□□□ □□□ □□ □□ □□□ □□□□ □□□□.

4.2. □□ □ □□□ □□ □□□ □□ □ □□

- /□□ : □□ □ □□□ □□□ □ □□.
- □ □□/□□ : □□□□ □□□.
- □□ □ □□/□□ : None under normal conditions. Dust may cause irritation in skin folds or by contact in combination with tight clothing.
- □□ □ □□/□□ : None under normal conditions. Dust from this product may cause eye irritation.
- □ □□/□□ : □□□ □□□.

4.3. □□□□ □□ □ □□ □□ □□ □□ □□

Treat symptomatically.

□□ 5: □□·□□□ □□□□

5.1. □□□ □□□

- □□□ : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2). Water spray. Dry powder. Foam.
- □□□ : Do not use a heavy water stream.

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

5.2. □□□□□□ □□ □□ □□□

- □□ : No fire hazard.
- □□ : No direct explosion hazard.
- □ □□□ □□ □□ : Toxic fumes may be released.

5.3. □□□□ □□□□ □ □□□□

- □□ : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
- □□ □ □□ : Do not attempt to take action without suitable protective equipment. □□□ □□□□□. Complete protective clothing.

□□ 6: □□□□□ □□□□

6.1. □□□ □□□□ □□ □□□ □□□□ □ □□□

- □□ : □□□ □□□ □□ □□□□ □□□ □□ □□□ □□. □□□□□ □□□□ □□ □□□□ □□□□□□□.
- □□ □□ □□ □□ : Wear recommended personal protective equipment.
- □□ : Ventilate spillage area. Evacuate unnecessary personnel. □□/□/□□/□□□/□□□□□ □(□) □□□ □ □□□.
- □□ □□ □□ □□ □□ : Do not attempt to take action without suitable protective equipment. □□□ □□ □□□□ □□□□□. □ □□□ □□□ □□ 8: "□□□□ □ □□□□" □ □□□□□.
- □□ : Stop release. Evacuate unnecessary personnel.

6.2. □□□ □□□□ □□ □□□ □□□□

□□□□ □□□□ □□□.

6.3. □□ □□ □□ □□

- : □□□□ □□□□.
- □□ : Mechanically recover the product. Clear up rapidly by scoop or vacuum.
- □□ □□□□ : Dispose of materials or solid residues at an authorized site.

6.4. □□ □□ □□

For further information refer to section 13.

□□ 7: □□ □ □□□□

7.1. □□□□□□

- □ □□□□□ □□ □□ : □□□□ □□ □□□□□ □□□ □□□ □□.
- : □□ □□□□ □□□□□. □, □□, □□□ □□ □□□ □□□. □□/□/□□/□□□/□□□□ □(□) □□□ □ □□□. □□ □□ □□□ □ □□ □□□□ □□□□□.
- □□ : □ □□□ □□□ □□□ □□□, □□□□ □□□□ □□□. □□ □□□ □□ □□ □(□) □□□ □□□□. Always wash hands after handling the product.

7.2. □□□□ □□□ □□□ □□□ □□ □□

- □□ : Keep in a cool, well-ventilated place away from heat.
- □□ : Store in original container. □□□ □□□ □□□□□. □□□□□ □□ □□□□□. □□□ □ □□ □□ □□□ □□.
- : Store always product in container of same material as original container.

7.3. □□ □□ □□

□□ □□

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ 8: □□□□ □□□□□□

8.1. □□ □□ □□

□□ □□

8.2. □□□□

□□□ □□□ □□

□□□ □□□ □□:

Ensure good ventilation of the work station.

□□ □□□

□□ □□□:

Wear recommended personal protective equipment.

□□ □□ □□ □□:



□ □ □ □ □ □ □ □

□ □ □:

Chemical goggles or safety glasses

Skin protection

□□ □□:

Wear a mask

□ □ □:

Protective gloves

□□□ □□

□□□ □□:

Wear appropriate mask

□□ □□ □□

□□ □□ □□:

□□□□ □□□□ □□□.

□□ 9: □□□□□ □□

9.1. □□□□ □□□□□ □□□ □□ □□

□□□ □□

: □□

□□

: White to pale pink.

□□

: Crystalline powder or crystals.

□□□

: 110.96 g/mol

□□

: vapor has a pungent sour smell.

□□ □□

: □□□□

□□□

: 315 °C (Sublimes)

□□□

: □□□□

□□ □□□□ □□□ □□

: □□□□

□□□

: □□□

□□ □□□

: □□□□

□□ □□□

: □□□□

□□□

: □□□□

□□□□ □□

: □□□□

□□ □□

: □□□□

pH

: □□□□

pH □□

: □□□□

□□(□□□)

: □□□□

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□□□ : □: 39.5 g/100ml at 25 °C - Soluble
Partition coefficient n-octanol/water (Log Kow) : □□□□
□□□□ : 1 hPa at 157 °C
50°C□□□□ □□□□ : □□□□
□□ : 3.95 g/cm³
□□ : □□□□
20°C□□□□ □□ □□ □□ : □□□□
Particle size : □□□□

9.2. □□□□□□□□

□□ □□ □□

□□□□ : 17.6 at 20 °C/D

□□ 10: □□□□ □□□□

10.1. □□□□

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

10.2. □□□□□□□□

Stable under normal conditions.

10.3. □□□□□□□□

No dangerous reactions known under normal conditions of use.

10.4. □□□□□□□□

□□□□. Air contact. Moisture.

10.5. □□□□□□□□

□□ □□

10.6. □□□□□□□□□□

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

□□ 11: □□□□ □□ □□

11.1. □□ (EC) No 1272/2008 □□□□, □□□□ □□□□ □□ □□

□□ □□ (□□) : □□□□ □□□□.
□□ □□ (□□) : □□□□ □□
□□ □□ (□□) : □□□□ □□□□.
□□ □□□□ □□ □□□□ : □□□□ □□
□□ □□ □□ □□ □□□□ : □□□□ □□
□□□□ □□ □□ □□□□ : □□□□ □□
□□□□ □□□□□□ : □□□□ □□
□□□□ □□□□□□ : □□□□ □□
□□ □□□□ □□ (1□ □□) : □□□□ □□
□□ □□□□ □□ (□□ □□) : □□□□ □□ □□ □□ □□ □□ □□ □□ □□ □□.
□□ □□ : There are potential chronic health effects to consider
□□ □□□□ : □□□□ □□

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE (7446-08-4)

□□(□□□□)

□□□□□

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

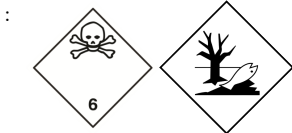
14.2. UN □□ □□□

□□ □□□ (ADR)	: □□□ □□□, □□, □□ □□□ □□□ □□ □
□□ □□□ (IMDG)	: SELENIUM COMPOUND, SOLID, N.O.S.
□□ □□□ (IATA)	: Selenium compound, solid, n.o.s.
□□ □□□ (ADN)	: □□□ □□□, □□, □□ □□□ □□□ □□ □
□□ □□□ (RID)	: □□□ □□□, □□, □□ □□□ □□□ □□ □
□□ □□ □□ (ADR) (ADR)	: UN 3283 □□□ □□□, □□, □□ □□□ □□□ □□ □ (SELENIUM DIOXIDE (SUBLIMED)), 6.1, III, (E), □□□ □□
Transport document description (IMDG)	: UN 3283 SELENIUM COMPOUND, SOLID, N.O.S., 6.1, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 3283 Selenium compound, solid, n.o.s. (SELENIUM DIOXIDE (SUBLIMED)), 6.1, III, ENVIRONMENTALLY HAZARDOUS
Transport document description (ADN)	: UN 3283 □□□ □□□, □□, □□ □□□ □□□ □□ □, 6.1, III, □□□ □□
Transport document description (RID)	: UN 3283 □□□ □□□, □□, □□ □□□ □□□ □□ □, 6.1, III, □□□ □□

14.3. □□□□□ □□□ □□

ADR

□□□□□ □□□ □□ (ADR) : 6.1
□□ □□ (ADR) : 6.1



IMDG

□□□□□ □□□ □□ (IMDG) : 6.1
□□ □□ (IMDG) : 6.1



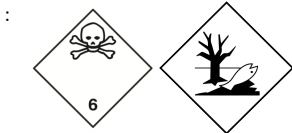
IATA

□□□□□ □□□ □□ (IATA) : 6.1
□□ □□ (IATA) : 6.1



ADN

□□□□□ □□□ □□ (ADN) : 6.1
□□ □□ (ADN) : 6.1



RID

□□□□□ □□□ □□ (RID) : 6.1
□□ □□ (RID) : 6.1



SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

14.4. □□□□

□□ □□ (ADR) : III
 □□ □□(IMDG) : III
 □□ □□ (IATA) : III
 □□ □□(ADN) : III
 □□ □□(RID) : III

14.5. □□ □□□

□□□ □□ : □□
 □□□□□□ : □□
 EmS-No. (□□) : F-A
 EmS-No. (□□) : S-A
 □ □□ □□□□ : □□ □□ □□ □□

14.6. □□□□ □□ □□ □□□□

□□ □□ :
 □□ □□ (ADR) : T5
 □□ □□(ADR) : 274, 563
 □□□(ADR) : 5kg
 □□□(ADR) : E1
 □□ □□(ADR) : P002, IBC08, LP02, R001
 □□ □□ (ADR) : B3
 □□ □□ □□ □□ □□(ADR) : MP10
 □□□ □□ □□ □□□□ □□ (ADR) : T1
 □□□ □□ □□ □□□□ □□ □□ (ADR) : TP33
 □□ □□(ADR) : SGAH, L4BH
 □□ □□ □□(ADR) : TU15, TE19
 □□ □□□□ □□ : AT
 □□ □□(ADR) : 2
 □□ □□ □□ □□ - □□ □□(ADR) : VC1, VC2, AP7
 □□ □□ □□ □□ - □□□, □□ □ □□(ADR) : CV13, CV28
 □□ □□ □□ □□ - □□(ADR) : S9
 □□ □□ □□(Kemler □□) : 60
 Orange plates (□□□□□□) :



□□ □□ □□ (ADR) : E
 EAC □□ : 2X

□□ □□ :
 □□ □□ (IMDG) : 223, 274
 □□ □□(IMDG) : 5 kg
 □□□(IMDG) : E1
 □□ □□ (IMDG) : P002, LP02
 IBC □□ □□(IMDG) : IBC08
 IBC □□ □□ (IMDG) : B3
 □□ □□ (IMDG) : T1
 □□ □□ □□ (IMDG) : TP33
 □□ □□ (IMDG) : A
 □□□ □□□□ (IMDG) : Toxic if swallowed, by skin contact or by inhalation.
 MFAG-□□ : 151

□□ □□ :
 PCA □□ □□(IATA) : E1
 PCA □□ □□(IATA) : Y645
 PCA □□ □□ □□ □□□(IATA) : 10kg
 PCA □□ □□(IATA) : 670
 PCA □□ □□□(IATA) : 100kg
 CAO □□ □□(IATA) : 677
 CAO □□ □□□(IATA) : 200kg

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□(IATA) : A3, A5
ERG □□(IATA) : 6L

□□ □□ □□
□□ □□(ADN) : T5
□□ □□(ADN) : 274, 563, 802
□□□(ADN) : 5 kg
□□□(ADN) : E1
□□ □□(ADN) : PP, EP
□□ □□/□□□ □□(ADN) : 0

□□ □□
□□ □□(RID) : T5
□□ □□(RID) : 274, 563
□□ □□(RID) : 5kg
□□□(RID) : E1
□□ □□ (RID) : P002, IBC08, LP02, R001
□□ □□ (RID) : B3
□□ □□ □□ □□ □□(RID) : MP10
□□□ □□ □ □□ □□□□ □□ (RID) : T1
□□□ □□ □ □□ □□□□ □□ □□ (RID) : TP33
RID □□□ □□ □□(RID) : SGAH, L4BH
RID □□□ □□ □□(RID) : TU15
□□ □□(RID) : 2
□□ □□ □□ □□ - □□ □□(RID) : VC1, VC2, AP7
□□ □□ □□ □□ - □□, □□ □ □□(RID) : CW13, CW28, CW31
□□ □□□□ : CE11
□□□ □□ □□ (RID) : 60

14.7. □□□□□□(IMO) □□ □□ □□ □□

□□□□

□□ 15: □□ □□□□

15.1. □□, □□ □ □□□ □□□□ □□□□ □□ □□ □□ □□/□□

EU □□

REACH □□□ XVII (□□ □□)

REACH □□□ XVII □□□□ □□

REACH □□□ XIV (□□ □□)

REACH □□□ XIV (□□ □□) □□□□ □□

REACH □□ □□ □□ (SVHC)

REACH □□ □□ □□□ □□□□ □□

PIC □□ (□□□□□□)

PIC □□□ □□□□ □□ (□□ EU 649/2012)

POP □□ (□□□ □□ □□□□)

POP □□□ □□□□ □□ (□□ EU 2019/1021)

Ozone Regulation (2024/590)

Not listed on the Ozone Depletion list (Regulation EU 2024/590)

□□□□ □□(428/2009)

Not listed on the COUNCIL REGULATION (EC) of dual-use items.

□□ □□□□ □□ (2019/1148)

Not listed on the Explosives Precursors list (EU)

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ □□□□ □□ (273/2004)

Not listed on the Drug Precursors list (EU)

□□ □□

□□□	
□□	□□
RG 75	

□□

WGK : WGK 2, □□□ □□□ □□ (Classification according to AwSV; ID □□ 419).
□□□□ □□ □□ (ChemVerbotsV) : This product is subject to ChemVerbotsV Annex 2 Entry 1. The following requirements must be observed: authorization requirement (according to § 6 paragraph 1 sentence 1), basic requirements for carrying out the delivery (according to § 8 paragraph 1, 3 and 4), identification and documentation (according to § 9 paragraph 1 to 3) and exclusion of the shipping route (according to § 10).

□□□□

SZW-lijst van kankerverwekkende stoffen : □□□ □□□□ □□□□□.
SZW-lijst van mutagene stoffen : □□□ □□□□ □□□□□.
SZW-lijst van reprotoxische stoffen – Borstvoeding : SELENIUM DIOXIDE (SUBLIMED)□(□) □□□ □□□□□
SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : □□□ □□□□ □□□□□.
SZW-lijst van reprotoxische stoffen – Ontwikkeling : □□□ □□□□ □□□□□.

□□□

□□□ □□ □□ : 18□ □□ □□□ □□ □□□ □□□□□
□□□□□ □□□□ □□/□□□□ □□ □□□ □□ □□□□ □□□□.

□□□

□□□ □□ □□ : Act of 25 February 2011 on chemical substances and their mixtures (J. o L. No. 63, item 322 as amended; consolidated text J. o L. 2019, item 1225).
Act of 14 December 2012 on waste (J. o L. 2013, item 322 as amended; consolidated text J. o L. 2020, item 797).
The announcement of Marshal of the Sejm of the Republic of Poland dated 19 October 2016 concerning the consolidated text announcement of the decree on the management of packaging and packaging waste (J. o L. 2016, item 1863 as amended).
Decree of the Minister of Environment of 14 December 2014 on the catalogue of waste (J. o L. 2014, item 1923).
Act of 19 August 2011 on the Carriage of Dangerous Goods (J. o L. 2011 No. 227, item 1367 as amended; consolidated text J. o L. 2020, item 154).
Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the highest permissible concentration and intensity of noxious agents for health at work environment (J. o L. item 1286 as amended).
The announcement of Minister of Health dated 9 September 2016 concerning the consolidated text announcement of the decree of the Minister of Health of 30 December 2004 on health and safety at work related to exposure to chemical agents at work (J. o L. of 16 September 2016, item 1488)
Regulation of the Minister of Health of 2 February 2011 on tests and measurements of the noxious agents for health at work environment (J. o L. No. 33, item 166 as amended).
Regulation of the Minister of Environment of 9 December 2003 on particularly hazardous substances to the environment (J. o L. No. 217, item 2141).
ADR Agreement: Government Statement of 13 March 2023 on the entry into force of amendments to Annexes A and B to the Agreement concerning the International Carriage of Dangerous Goods by Road (ADR), signed in Geneva on 30 September 1957 (J. o. L. 2023, item 891)

15.2. □□ □□ □□□ □□

No chemical safety assessment has been carried out

SELENIUM DIOXIDE (SUBLIMED) EXTRA PURE

□□□□□□□□

□□ (EU) 2020/878 □□ □□□ REACH □□ (EC) 1907/2006 □□ □□

□□ 16: □□ □□□□

□□ □□□□□:

ACGIH	American Conference of Government Industrial Hygienists
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	□□ □□ □
BOD	Biochemical oxygen demand (BOD)
CAS □□	□□□□ □□ □□ □□(CAS)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	□□□ □□ □□□
CSA	□□ □□ □□□ □□
DMEL	Derived Minimal Effect level
DNEL	□□ □□□ □□
EC □□	□□ □□□ □□
EC50	Median effective concentration
ED	□□□ □□□□
EN	□□ □□
EWC	European waste catalogue
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
Log Kow	Partition coefficient n-octanol/water (Log Kow)
Log Pow	Partition coefficient n-octanol/water (Log Pow)
MAK	maximum workplace concentration
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
N.O.S.	Not Otherwise Specified
OECD	Organisation for Economic Co-operation and Development
OEL	□□□ □□ □□
OSHA	Occupational Safety & Health Administration
PBT	Persistent Bioaccumulative Toxic
PNEC	□□ □□□ □□
PPE	□□ □□□

