

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

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

· **1.1 Product identifier**

· **Trade name:** PerkinElmer Advanced Filter System

· **Article number:** N9303963

· **1.2 Relevant identified uses of the substance or mixture and uses advised against**
No further relevant information available.

· **Application of the substance / the mixture** Laboratory chemicals

· **1.3 Details of the supplier of the safety data sheet**

· **Manufacturer/Supplier:**

PerkinElmer, Inc.
710 Bridgeport Avenue
Shelton, Connecticut 06484 USA
CustomerCareUS@perkinelmer.com
203-925-4600

PerkinElmer, Inc.
Chalfont Road Buckinghamshire
Seer Green HP9 2FX
cc.uk@perkinelmer.com
United Kingdom
P: 0800 896 046
F: 0800-89 17 14

PerkinElmer, Inc.
Llantrisant Business Park, Unit A
Llantrisant CF72 8YW
United Kingdom
cc.uk@perkinelmer.com
P: 44 1443 234005

· **1.4 Emergency telephone number:**

CHEMTREC (within US) 800-424-9300

CHEMTREC (from outside US) +1 703-527-3887 (call collect)

CHEMTREC (within AU) +(61)-290372994

* **SECTION 2: Hazards identification**

· **2.1 Classification of the substance or mixture**

· **Classification according to Regulation (EC) No 1272/2008**



GHS02 flame

Self-heat. 1 H251 Self-heating: may catch fire.



GHS08 health hazard

Carc. 1A H350 May cause cancer.

(Contd. on page 2)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 1)



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

Aquatic Acute 1 H400 Very toxic to aquatic life.

Aquatic Chronic 1 H410 Very toxic to aquatic life with long lasting effects.

· **2.2 Label elements**

· **Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

· **Hazard pictograms** GHS02, GHS05, GHS08, GHS09

· **Signal word** Danger

· **Hazard-determining components of labelling:**

calcium oxide

Quartz (SiO₂)

· **Hazard statements**

H251 Self-heating: may catch fire.

H318 Causes serious eye damage.

H350 May cause cancer.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P235+P410 Keep cool. Protect from sunlight.

P280 Wear protective gloves / 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.

P310 Immediately call a POISON CENTER/doctor.

P420 Store away from other materials.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **2.3 Other hazards**

The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds or formaldehydes.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· **3.2 Chemical characterisation: Mixtures**

· **Description:** Mixture of substances listed below with nonhazardous additions.

(Contd. on page 3)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 2)

· Dangerous components:		
CAS: 7440-44-0 EINECS: 231-153-3	carbon Flam. Sol. 1, H228	29.2%
CAS: 1344-28-1 EINECS: 215-691-6	aluminium oxide substance with a Community workplace exposure limit	16.0%
CAS: 1313-13-9 EINECS: 215-202-6	manganese dioxide Acute Tox. 4, H302; Acute Tox. 4, H332	11.5%
CAS: 1305-78-8 EINECS: 215-138-9	calcium oxide Eye Dam. 1, H318	10.0%
CAS: 1317-38-0 EINECS: 215-269-1	copper(II) oxide Aquatic Acute 1, H400; Aquatic Chronic 1, H410	5.1%
CAS: 14808-60-7 EINECS: 238-878-4	Quartz (SiO ₂) Carc. 1A, H350	1.0%
· Additional Components		
CAS: 7631-86-9 EINECS: 231-545-4	silicon dioxide, chemically prepared	16.89%
CAS: 1313-59-3	SODIUM OXIDE	10.0%
CAS: 10034-96-5	Mangan(II)-sulfat-Monohydrat	0.31%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **4.2 Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **5.2 Special hazards arising from the substance or mixture** No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** No special measures required.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 3)

- **6.2 Environmental precautions:**
Inform respective authorities in case of seepage into water course or sewage system.
- **6.3 Methods and material for containment and cleaning up:**
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Thorough dedusting.
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Keep respiratory protective device available.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **8.1 Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

7440-44-0 carbon	
WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable
1344-28-1 aluminium oxide	
WEL	Long-term value: 10* 4** mg/m ³ *inhalable dust **respirable dust
1313-13-9 manganese dioxide	
WEL	Long-term value: 0.2* 0.05** mg/m ³ as Mn *inhalable fraction **respirable fraction
1305-78-8 calcium oxide	
WEL	Short-term value: 4* mg/m ³ Long-term value: 2 1* mg/m ³ *respirable fraction

(Contd. on page 5)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 4)

1317-38-0 copper(II) oxide

<i>WEL</i>	Short-term value: 2 mg/m ³ Long-term value: 1 mg/m ³ dusts and mists, as Cu
------------	---

- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Store protective clothing separately.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Respiratory protection:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- **Protection of hands:**



Protective gloves

- The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
 - **Penetration time of glove material**
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
 - **Eye protection:**



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Solid
Colour:	According to product specification
Odour:	Characteristic

(Contd. on page 6)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 5)

· Odour threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	2,230 °C
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not determined.
· Ignition temperature:	>370 °C
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard. Not determined.
· Explosion limits: Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity: Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Solids content:	70.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.

(Contd. on page 7)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

· **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. of page 6)

* **SECTION 11: Toxicological information**

- **11.1 Information on toxicological effects**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation**
Causes serious eye damage.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity**
May cause cancer.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

* **SECTION 12: Ecological information**

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Must not reach sewage water or drainage ditch undiluted or unneutralised.
Danger to drinking water if even extremely small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Very toxic for aquatic organisms
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 8)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019



Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 7)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN3190
· 14.2 UN proper shipping name · ADR · IMDG, IATA	3190 SELF-HEATING SOLID, INORGANIC, N.O.S. (Activated copper oxide), ENVIRONMENTALLY HAZARDOUS SELF-HEATING SOLID, INORGANIC, N.O.S. (Activated copper oxide)
· 14.3 Transport hazard class(es) · ADR	
	
· Class · Label	4.2 (SO) Substances liable to spontaneous combustion. 4.2
· IMDG, IATA	
	
· Class · Label	4.2 Substances liable to spontaneous combustion. 4.2
· 14.4 Packing group · ADR, IMDG, IATA	II
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR):	No Symbol (fish and tree)
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Stowage Category	Warning: Substances liable to spontaneous combustion. - F-A,S-J E
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.

(Contd. on page 9)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 8)

· **Transport/Additional information:**

· **ADR**

· **Limited quantities (LQ)**

0

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 g

Maximum net quantity per outer packaging: 500 g

· **IMDG**

· **Limited quantities (LQ)**

0

· **Excepted quantities (EQ)**

Code: E2

Maximum net quantity per inner packaging: 30 g


Maximum net quantity per outer packaging: 500 g

· **UN "Model Regulation":**

UN 3190 SELF-HEATING SOLID, INORGANIC, N.O.S.
(ACTIVATED COPPER OXIDE), 4.2, II,
ENVIRONMENTALLY HAZARDOUS

SECTION 15: Regulatory information

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

CAS: 7440-44-0	carbon	29.2%
EINECS: 231-153-3	 Flam. Sol. 1, H228	
CAS: 7631-86-9	silicon dioxide, chemically prepared	16.89%
EINECS: 231-545-4		
CAS: 1344-28-1	aluminium oxide	16.0%
EINECS: 215-691-6	substance with a Community workplace exposure limit	

· **Directive 2012/18/EU**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Seveso category E1** Hazardous to the Aquatic Environment

· **Qualifying quantity (tonnes) for the application of lower-tier requirements** 100 t

· **Qualifying quantity (tonnes) for the application of upper-tier requirements** 200 t

· **National regulations:**

· **Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation. Exceptions can be made by the authorities in certain cases.

· **Waterhazard class:** Water hazard class 3 (Self-assessment): extremely hazardous for water.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Disclaimer

The information provided in this Material Safety Data Sheet is based on our present knowledge, and believed to be correct at the date of publication. However, no representation is made concerning its accuracy and completeness. It is intended as guidance only, and is not to be

(Contd. on page 10)

according to 1907/2006/EC, Article 31

Printing date 23.05.2019

Revision: 23.05.2019

Trade name: PerkinElmer Advanced Filter System

(Contd. of page 9)

considered a warranty or quality specification. All materials may present unknown hazards, and should be used with caution. Although certain hazards are described, we cannot guarantee that these are the only hazards which exist. PerkinElmer Life and Analytical Sciences shall not be held liable for any damage resulting from handling or from contact with the product.

· **Relevant phrases**

*H228 Flammable solid.
H302 Harmful if swallowed.
H318 Causes serious eye damage.
H332 Harmful if inhaled.
H350 May cause cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.*

· **Department issuing SDS:**

*Environmental, Health and Safety
PerkinElmer
Chalfont Road
Buckinghamshire
Seer Green
HP9 2FX
United Kingdom
Telephone : 0800-89 60 46
FAX : 0800-89 17 14*

· **Contact:**

*Within the USA: 1-(800)-762-4000
Outside the USA: 1-(203)-712-8488*

· **Abbreviations and acronyms**

*RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
ICAO: International Civil Aviation Organisation
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Flam. Sol. 1: Flammable solids – Category 1
Self-heat. 1: Self-heating substances and mixtures – Category 1
Acute Tox. 4: Acute toxicity – Category 4
Eye Dam. 1: Serious eye damage/eye irritation – Category 1
Carc. 1A: Carcinogenicity – Category 1A
Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1*

· *** Data compared to the previous version altered.**