

**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

Hazardous according to criteria of Australian Safety and Compensation Council.

## 1 Identification

- **Product identifier**
- **Trade name:** STD AFT MULTI-ELEMENT H/HE
- **Article number:** N8151038
- **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
- **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

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Supplier/Local:  
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PerkinElmer Australia  
Lvl 2, Bldg 5, Brandon Office Park  
530-540 Springvale Road  
Glen Waverley  
Melbourne  
VIC 3150  
Australia  
1-800-033-391  
ausales@perkinelmer.com

- **Emergency telephone number:**  
CHEMTREC (within US) 800-424-9300  
CHEMTREC (from outside US) +1 703-527-3887 (call collect)  
CHEMTREC (within AU) +(61)-290372994

## 2 Hazard(s) Identification

- **Classification of the substance or mixture**



Skin Irrit. 2      H315 Causes skin irritation.  
Eye Irritation 2A   H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The product is classified and labelled according to the Globally Harmonised System (GHS).
- **Hazard pictograms** GHS07
- **Signal word** Warning

(Contd. on page 2)

AU

according to WHS Regulations

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

(Contd. of page 1)

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

nitric acid

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Precautionary statements**

P264 Wash thoroughly after handling.

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.

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

P337+P313 If eye irritation persists: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

· **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.

**3 Composition and Information on Ingredients**








· **Chemical characterisation: Mixtures**

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

· **Dangerous components:**

7697-37-2	nitric acid	 Ox. Liq. 3, H272  Acute Tox. 3, H331  Skin Corr. 1, H314	2.0%
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· **Additional Components**

7732-18-5	Water		97.9971%
7429-90-5	aluminium		0.0001%
7439-89-6	iron		0.0001%
	 Acute Tox. 2, H300		
7439-92-1	lead		0.0001%
	 Repr. 1A, H360		
7439-93-2	lithium		0.0001%
	 Water-react. 1, H260		
	 Skin Corr. 1, H314		
7439-95-4	magnesium		0.0001%
	 Pyr. Sol. 1, H250; Water-react. 1, H260		
7439-96-5	manganese		0.0001%
7440-02-0	nickel		0.0001%
	 Carc. 2, H351; STOT RE 1, H372		
	 Skin Sens. 1, H317		
























(Contd. on page 3)

**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**



		(Contd. of page 2)
7440-09-7	potassium  Water-react. 1, H260  Skin Corr. 1, H314	0.0001%
7440-17-7	rubidium  Water-react. 1, H260  Skin Corr. 1, H314; Eye Dam. 1, H318	0.0001%
7440-22-4	silver	0.0001%
7440-23-5	sodium  Water-react. 1, H260  Skin Corr. 1, H314	0.0001%
7440-24-6	strontium  Water-react. 1, H260	0.0001%
7440-28-0	thallium  Acute Tox. 2, H300; Acute Tox. 2, H330  STOT RE 2, H373	0.0001%
7440-38-2	Arsenic  Acute Tox. 3, H301; Acute Tox. 3, H331	0.0001%
7440-39-3	barium  Water-react. 2, H261	0.0001%
7440-41-7	beryllium  Acute Tox. 3, H301; Acute Tox. 2, H330  Carc. 1B, H350; STOT RE 1, H372  Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.0001%
7440-43-9	cadmium  Acute Tox. 3, H301; Acute Tox. 2, H330  Muta. 2, H341; Carc. 1B, H350; Repr. 2, H361; STOT RE 1, H372	0.0001%
7440-46-2	Cesium nitrate	0.0001%
7440-47-3	chromium	0.0001%
7440-48-4	cobalt  Resp. Sens. 1, H334; Muta. 2, H341; Carc. 1B, H350; Repr. 1B, H360  Skin Sens. 1, H317	0.0001%
7440-50-8	copper	0.0001%
7440-55-3	gallium  Skin Corr. 1, H314	0.0001%
7440-61-1	uranium  Acute Tox. 2, H300; Acute Tox. 2, H330  STOT RE 2, H373	0.0001%
7440-62-2	vanadium	0.0001%
7440-66-6	zinc  Pyr. Sol. 1, H250; Water-react. 1, H260	0.0001%
7440-69-9	bismuth	0.0001%
7440-70-2	calcium  Water-react. 2, H261	0.0001%
		(Contd. on page 4)

**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

		(Contd. of page 3)
7440-74-6	Indium	0.0001%
7782-49-2	selenium	0.0001%
 Acute Tox. 3, H301; Acute Tox. 3, H331  STOT RE 2, H373		

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

#### 4 First Aid Measures

- **Description of first aid measures**
- **General information:** Immediately remove any clothing soiled by the product.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

#### 5 Fire Fighting Measures

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

#### 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
- **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.

#### 7 Handling and Storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.

(Contd. on page 5)

**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

(Contd. of page 4)

- **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.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls and personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **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.  
Avoid contact with the eyes and skin.
- **Respiratory protection:** Not required.
- **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

AU

(Contd. on page 6)

according to WHS Regulations

Printing date 19.09.2022

Revision: 19.09.2022

Trade name: STD AFT MULTI-ELEMENT H/HE

(Contd. of page 5)

## 9 Physical and Chemical Properties

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
Form:	Fluid
Colour:	Dark brown
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· <b>Change in condition</b>	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard. Not determined.
· <b>Explosion limits:</b>	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density:	Not determined.
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Fully miscible.
· Partition coefficient: n-octanol/water:	Not determined.
· <b>Viscosity:</b>	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	98.0 %
Solids content:	0.0 %
· Other information	No further relevant information available.

## 10 Stability and Reactivity

· **Reactivity** No further relevant information available.

(Contd. on page 7)

according to WHS Regulations

Printing date 19.09.2022

Revision: 19.09.2022

Trade name: STD AFT MULTI-ELEMENT H/HE

(Contd. of page 6)

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

## 11 Toxicological Information

- **Information on toxicological effects**
- **Acute toxicity**

· **LD/LC50 values relevant for classification:**

7697-37-2 nitric acid

Inhalative	LC50/4 h	2.65 mg/l (ATE)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Irritant to skin and mucous membranes.
- **Serious eye damage/irritation** Irritating effect.
- **Respiratory or skin sensitisation** No sensitising effects known.

· **Additional toxicological information:**

The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:

Irritant

## 12 Ecological Information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

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

(Contd. on page 8)

AU

**according to WHS Regulations**

Printing date 19.09.2022



Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

(Contd. of page 7)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

## 14 Transport information

· <b>UN-Number</b>	UN3264
· <b>ADG, IMDG, IATA</b>	
· <b>UN proper shipping name</b>	3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric Acid)
· <b>ADG</b>	
· <b>IMDG, IATA</b>	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Nitric Acid)
· <b>Transport hazard class(es)</b>	
· <b>ADG</b>	
	
· <b>Class</b>	8 (C1) Corrosive substances.
· <b>Label</b>	8
· <b>IMDG, IATA</b>	
	
· <b>Class</b>	8 Corrosive substances.
· <b>Label</b>	8
· <b>Packing group</b>	
· <b>ADG, IMDG, IATA</b>	III
· <b>Environmental hazards:</b>	Not applicable.
· <b>Special precautions for user</b>	Warning: Corrosive substances.
· <b>Hazard identification number (Kemler code):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW2 Clear of living quarters.
· <b>Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.

(Contd. on page 9)



**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

(Contd. of page 8)

**· Transport/Additional information:**

**· ADG**

**· Limited quantities (LQ)**

5L

**· Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

**· Transport category**

3

**· Tunnel restriction code**

E

**· IMDG**

**· Limited quantities (LQ)**

5L

**· Excepted quantities (EQ)**

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml




**· UN "Model Regulation":**

UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC,  
N.O.S. (NITRIC ACID), 8, III

\*

**15 Regulatory information**

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

7732-18-5	Water		97.9971%
7697-37-2	nitric acid	 Ox. Liq. 3, H272  Acute Tox. 3, H331  Skin Corr. 1, H314	2.0%
7429-90-5	aluminium		0.0001%

**· Australia: Priority Existing Chemicals**

None of the ingredients is listed.

**· Directive 2012/18/EU**

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

**· National regulations:**

**· Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

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

**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 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.

(Contd. on page 10)

AU

**according to WHS Regulations**

Printing date 19.09.2022

Revision: 19.09.2022

**Trade name: STD AFT MULTI-ELEMENT H/HE**

(Contd. of page 9)

· **Relevant phrases**

H250 Catches fire spontaneously if exposed to air.  
H260 In contact with water releases flammable gases which may ignite spontaneously.  
H261 In contact with water releases flammable gases.  
H272 May intensify fire; oxidiser.  
H300 Fatal if swallowed.  
H301 Toxic if swallowed.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H318 Causes serious eye damage.  
H319 Causes serious eye irritation.  
H330 Fatal if inhaled.  
H331 Toxic if inhaled.  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.  
H335 May cause respiratory irritation.  
H341 Suspected of causing genetic defects.  
H350 May cause cancer.  
H351 Suspected of causing cancer.  
H360 May damage fertility or the unborn child.  
H361 Suspected of damaging fertility or the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H373 May cause damage to organs through prolonged or repeated exposure.

· **Department issuing SDS: Environmental, Health and Safety**

· **Contact:**

Within the USA: 1-(800)-762-4000

Outside the USA: 1-(203)-712-8488

· **Abbreviations and acronyms**

ADR: Accord relatif au transport international 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  
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)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Ox. Liq. 3: Oxidizing liquids – Category 3  
Acute Tox. 3: Acute toxicity – Category 3  
Skin Corr. 1: Skin corrosion/irritation – Category 1  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

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