

1 Identification

- **Product identifier**
- **Trade name:** NexION Setup Solution
- **Article number** N8145051
- **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

- **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 Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms** GHS07
- **Signal word** Warning
- **Hazard statements**
H315 Causes skin irritation.
H319 Causes serious eye irritation.

- **Precautionary statements**
P280 Wear protective gloves / eye protection / face protection.
P264 Wash thoroughly after handling.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P321 Specific treatment (see on this label).
P332+P313 If skin irritation occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P302+P352 IF ON SKIN: Wash with plenty of water.
P362+P364 Take off contaminated clothing and wash it before reuse.

- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 0
Reactivity = 0

Trade name: NexION Setup Solution

(Contd. of page 1)

· **HMIS-ratings (scale 0 - 4)**

HEALTH	1	Health = 1
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

· **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/information on ingredients

· **Chemical characterization: Mixtures**

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

· **Hazardous components:**

7697-37-2	Nitric Acid		Ox. Liq. 3, H272 Skin Corr. 1A, H314	1.0%
-----------	-------------	--	---	------

· **Additional Components**

7439-93-2	lithium		Water-react. 1, H260 Skin Corr. 1B, H314	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. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.0001%
7439-95-4	magnesium		Pyr. Sol. 1, H250; Water-react. 1, H260	0.0001%
7439-89-6	iron			0.0001%
7440-74-6	Indium			0.0001%
7440-45-1	cerium		Water-react. 2, H261	0.0001%
7439-92-1	lead		Acute Tox. 3, H301 Carc. 2, H351; Repr. 1A, H360; STOT RE 2, H373 Acute Tox. 4, H332	0.0001%
7440-61-1	uranium		Acute Tox. 2, H300; Acute Tox. 2, H330 STOT RE 2, H373	0.0001%
7732-18-5	Water			98.9992%

4 First-aid measures

· **Description of first aid measures**

· **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.

(Contd. on page 3)

Trade name: NexION Setup Solution

(Contd. of page 2)

- **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 fighting measures that suit the environment.*
- **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:** *Inform respective authorities in case of seepage into water course or sewage system.*
- **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.
- **Protective Action Criteria for Chemicals**

· PAC-1:

7697-37-2	Nitric Acid	0.16 ppm
7439-93-2	lithium	3.3 mg/m ³
7440-41-7	beryllium	0.0023 mg/m ³
7439-95-4	magnesium	18 mg/m ³
7439-89-6	iron	3.2 mg/m ³
7440-74-6	Indium	0.3 mg/m ³
7440-45-1	cerium	30 mg/m ³
7439-92-1	lead	0.15 mg/m ³
7440-61-1	uranium	0.6 mg/m ³

· PAC-2:

7697-37-2	Nitric Acid	24 ppm
7439-93-2	lithium	36 mg/m ³
7440-41-7	beryllium	0.025 mg/m ³
7439-95-4	magnesium	200 mg/m ³
7439-89-6	iron	35 mg/m ³
7440-74-6	Indium	3.3 mg/m ³
7440-45-1	cerium	330 mg/m ³
7439-92-1	lead	120 mg/m ³
7440-61-1	uranium	5 mg/m ³

· PAC-3:

7697-37-2	Nitric Acid	92 ppm
-----------	-------------	--------

(Contd. on page 4)

Trade name: NexION Setup Solution

		(Contd. of page 3)
7439-93-2	<i>lithium</i>	220 mg/m ³
7440-41-7	<i>beryllium</i>	0.1 mg/m ³
7439-95-4	<i>magnesium</i>	1,200 mg/m ³
7439-89-6	<i>iron</i>	150 mg/m ³
7440-74-6	<i>Indium</i>	20 mg/m ³
7440-45-1	<i>cerium</i>	2,000 mg/m ³
7439-92-1	<i>lead</i>	700 mg/m ³
7440-61-1	<i>uranium</i>	30 mg/m ³

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **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 receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

· **Control parameters**

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

7697-37-2 Nitric Acid

PEL	Long-term value: 5 mg/m ³ , 2 ppm
REL	Short-term value: 10 mg/m ³ , 4 ppm Long-term value: 5 mg/m ³ , 2 ppm
TLV	Short-term value: 10 mg/m ³ , 4 ppm Long-term value: 5.2 mg/m ³ , 2 ppm

- **Additional information:** The lists that were valid during the creation 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.

· **Breathing equipment:** Not required.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

(Contd. on page 5)

Trade name: NexION Setup Solution

(Contd. of page 4)

- 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 or safety glasses

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**
 - **Form:** Liquid
 - **Color:** Not determined.
 - **Odor:** Characteristic
 - **Odor threshold:** Not determined.
- **pH-value:** Not determined.
- **Change in condition**
 - **Melting point/Melting range:** 0 °C (32 °F)
 - **Boiling point/Boiling range:** 100 °C (212 °F)
- **Flash point:** Not applicable.
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
 - **Decomposition temperature:** Not determined.
- **Auto igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - **Lower:** Not determined.
 - **Upper:** Not determined.
- **Vapor pressure at 20 °C (68 °F):** 23 hPa (17 mm Hg)
- **Density:** Not determined.
- **Relative density** Not determined.
- **Vapor density** Not determined.
- **Evaporation rate** Not determined.
- **Solubility in / Miscibility with**
 - **Water:** Not miscible or difficult to mix.
- **Partition coefficient (n-octanol/water):** Not determined.

(Contd. on page 6)

Trade name: NexION Setup Solution

(Contd. of page 5)

- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** 0.0 %
 - Water:** 99.0 %
- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **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:**
- **Primary irritant effect:**
 - **on the skin:** Irritant to skin and mucous membranes.
 - **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)

7440-41-7	beryllium	I
7439-92-1	lead	2B

· NTP (National Toxicology Program)

7440-41-7	beryllium	K
7439-92-1	lead	R

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

(Contd. on page 7)

Trade name: NexION Setup Solution




(Contd. of page 6)

- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **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:**
Dispose of container and materials in accordance with local, regional and national regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

*** 14 Transport information**

· UN-Number	
· DOT, ADR, IMDG, IATA	UN3264
· UN proper shipping name	
· DOT, ADR	Corrosive liquid, acidic, inorganic, n.o.s. (dušična kiselina)
· IMDG, IATA	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (dušična kiselina)
· Transport hazard class(es)	
· DOT	
	
· Class	8 Corrosive substances
· Label	8
· ADR	
	
· Class	8 (C1) Corrosive substances
· Label	8
· IMDG, IATA	
	
· Class	8 Corrosive substances

(Contd. on page 8)

Trade name: NexION Setup Solution

(Contd. of page 7)

· Label	8
· Packing group · DOT, ADR, IMDG, IATA	III
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups · Stowage Category · Stowage Code	Warning: Corrosive substances 80 F-A,S-B Acids A SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information: · DOT · Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· ADR · Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· IMDG · Limited quantities (LQ) · Excepted quantities (EQ)	5L 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. (DUŠIČNA KISELINA), 8, III

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture		
7732-18-5	Water	98.9992%
7697-37-2	Nitric Acid ⚠ Ox. Liq. 3, H272 ⚠ Skin Corr. 1A, H314	1.0%
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. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	0.0001%
· Sara		
· Section 355 (extremely hazardous substances):		
7697-37-2	Nitric Acid	
· Section 313 (Specific toxic chemical listings):		
7697-37-2	Nitric Acid	

(Contd. on page 9)

Trade name: NexION Setup Solution

(Contd. of page 8)

7440-41-7	beryllium
7439-92-1	lead

· **TSCA (Toxic Substances Control Act):**
All ingredients are listed.

7697-37-2	Nitric Acid
7439-93-2	lithium
7440-41-7	beryllium
7439-95-4	magnesium
7439-89-6	iron
7440-74-6	Indium
7440-45-1	cerium
7439-92-1	lead
7440-61-1	uranium
7732-18-5	Water

· **Proposition 65**

· **Chemicals known to cause cancer:**

7440-41-7	beryllium
7439-92-1	lead

· **Chemicals known to cause reproductive toxicity for females:**

7439-92-1	lead
-----------	------

· **Chemicals known to cause reproductive toxicity for males:**

7439-92-1	lead
-----------	------

· **Chemicals known to cause developmental toxicity:**

7439-92-1	lead
-----------	------

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

7440-41-7	beryllium	B1, K/L(inh), CBD(oral)
7439-92-1	lead	B2

· **TLV (Threshold Limit Value established by ACGIH)**

7440-41-7	beryllium	A1
7439-92-1	lead	A3
7440-61-1	uranium	A1

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

7440-41-7	beryllium
7440-61-1	uranium

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS07

· **Signal word** Warning

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Precautionary statements**

P280 Wear protective gloves / eye protection / face protection.

P264 Wash thoroughly after handling.

(Contd. on page 10)

Trade name: NexION Setup Solution

(Contd. of page 9)

- P305+P351+P338 *If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.*
- P321 *Specific treatment (see on this label).*
- P332+P313 *If skin irritation occurs: Get medical advice/attention.*
- P337+P313 *If eye irritation persists: Get medical advice/attention.*
- P302+P352 *IF ON SKIN: Wash with plenty of water.*
- P362+P364 *Take off contaminated clothing and wash it before reuse.*

· **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.

· **Water hazard class:** *Water hazard class 2 (Self-assessment): 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 shall not be held liable for any damage resulting from handling or from contact with the product.

· **Contact:**

With in the USA: 1-(800)-762-4000

Out side 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

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Ox. Liq. 3: Oxidizing liquids – Category 3

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

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