

CAS-No.: MSDS

MATERIAL SAFETY DATA SHEET (MSDS)

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

1.1. Product identifier

Product form : Mixture
:
Product code : I166N

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Laboratory chemicals, Manufacture of substances

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LOBA CHEMIE PVT.LTD.
107 Wode House Road, Jehangir Villa, Colaba
400005 Mumbai - INDIA
T +91 22 6663 6663 - F +91 22 6663 6699
info@lobachemie.com - www.lobachemie.com

1.4. Emergency telephone number

Emergency number : + 91 22 6663 6663 (9:00am - 6:00 pm)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, H314
Category 1B

Full text of hazard classes and H-statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

MULTIELEMENT STANDARD SOLUTION FOR ICP 33 COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P280 - Wear protective clothing, face protection, eye 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.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
NITRIC ACID	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1	1 - 5	Ox. Liq. 2, H272 Skin Corr. 1A, H314
BISMUTH (METAL) GRANULAR 99.5%	(CAS-No.) 7440-69-9	2 - 5	Not classified
CESIUM CARBONATE EXTRA PURE	(CAS-No.) 534-17-8	2 - 5	Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335
Indium Metal		2 - 5	Not classified
Vanadium pentoxide	(CAS-No.) 1314-62-1 (EC-No.) 215-239-8 (EC Index-No.) 023-001-00-8	2 - 5	STOT RE 1, H372 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Oral), H302 Muta. 2, H341 Repr. 2, H361d STOT SE 3, H335 Aquatic Chronic 2, H411

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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LEAD (METAL) FOIL substance listed as REACH Candidate (Lead)	(CAS-No.) 7439-92-1	2 - 5	STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Antimony trioxide	(CAS-No.) 1309-64-4 (EC-No.) 215-175-0 (EC Index-No.) 051-005-00-X	2 - 5	Carc. 2, H351
STRONTIUM HYDROXIDE (OCTAHYDRATE) EXTRA PURE	(CAS-No.) 1311-10-0	2 - 5	Skin Corr. 1B, H314
RUBIDIUM CHLORIDE AR	(CAS-No.) 7791-11-9 (EC-No.) 232-240-9	2 - 5	Not classified
TITANIUM FINE POWDER (LAB) Practical grade	(CAS-No.) 7440-32-6	2 - 5	Pyr. Sol. 1, H250
ZINC (METAL) GRANULAR AR	(CAS-No.) 7440-66-6 (EC-No.) 231-175-3 (EC Index-No.) 030-001-00-1	2 - 5	Aquatic Chronic 1, H410
NIOBIUM PENTOXIDE AR	(CAS-No.) 1313-96-8	2 - 4	Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335
Beryllium	(CAS-No.) 7440-41-7 (EC-No.) 231-150-7 (EC Index-No.) 004-001-00-7	1 - 3	Carc. 1B, H350i Acute Tox. 2 (Inhalation), H330 Acute Tox. 3 (Oral), H301 STOT RE 1, H372 Eye Irrit. 2, H319 Skin Irrit. 2, H315 STOT SE 3, H335 Skin Sens. 1, H317
Cobalt	(CAS-No.) 7440-48-4 (EC-No.) 231-158-0 (EC Index-No.) 027-001-00-9	2 - 3	Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Chronic 4, H413
CADMIUM (METAL) GRANULAR 99.9% AR substance listed as REACH Candidate (Cadmium)	(CAS-No.) 7440-43-9 (EC-No.) 231-152-8 (EC Index-No.) 048-002-00-0	2 - 3	Acute Tox. 2 (Inhalation), H330 Muta. 2, H341 Carc. 1B, H350 Repr. 2, H361fd STOT RE 1, H372 Aquatic Chronic 1, H410
CHROMIUM TRIOXIDE AR substance listed as REACH Candidate (Chromium trioxide) substance listed in REACH Annex XIV (Chromium trioxide)	(CAS-No.) 1333-82-0 (EC-No.) 215-607-8 (EC Index-No.) 024-001-00-0	1 - 3	Ox. Sol. 1, H271 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation), H330 Skin Corr. 1A, H314 Resp. Sens. 1, H334 Skin Sens. 1, H317 Muta. 1B, H340 Carc. 1A, H350 Repr. 2, H361f STOT RE 1, H372 Aquatic Chronic 1, H410
MOLYBDIC ACID AR/ACS	(CAS-No.) 7782-91-4	1 - 3	Not classified
SODIUM METAL Extra Pure	(CAS-No.) 7440-23-5	2 - 3	Water-react. 1, H260 Skin Corr. 1B, H314
Nickel	(CAS-No.) 7440-02-0 (EC-No.) 231-111-4 (EC Index-No.) 028-002-00-7	2 - 3	STOT RE 1, H372 Carc. 2, H351 Skin Sens. 1, H317 Aquatic Chronic 3, H412

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SILVER (METAL) POWDER 99.9%	(CAS-No.) 7440-22-4	2 - 2.5	Not classified
ALUMINIUM FOIL AR	(CAS-No.) 7429-90-5 (EC-No.) 231-072-3 (EC Index-No.) 013-002-00-1	2 - 2.5	Aquatic Acute 1, H400
Calcium	(CAS-No.) 7440-70-2 (EC-No.) 231-179-5 (EC Index-No.) 020-001-00-X	2 - 2.5	Water-react. 1, H260
ARSENIC TRIOXIDE AR substance listed as REACH Candidate (Diarsenic trioxide) substance listed in REACH Annex XIV (Diarsenic trioxide)	(CAS-No.) 1327-53-3 (EC-No.) 215-481-4 (EC Index-No.) 033-003-00-0	2 - 2.5	Acute Tox. 1 (Oral), H300 Skin Corr. 1B, H314 Carc. 1A, H350 Aquatic Chronic 1, H410
BARIUM CHROMATE AR	(CAS-No.) 10294-40-3	2 - 2.5	Ox. Sol. 2, H272 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332
BORON POWDER	(CAS-No.) 7440-42-8	2 - 2.5	Not classified
Potassium hydroxide	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3 (EC Index-No.) 019-002-00-8	2 - 2.5	Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 4 (Oral), H302
LITHIUM (METAL)	(CAS-No.) 7439-93-2 (EC-No.) 231-102-5	2 - 2.5	Water-react. 1, H260 Skin Corr. 1B, H314
IRON WIRE AR 0,57 mm diameter,	(CAS-No.) 7439-89-6	2 - 2.5	Flam. Sol. 1, H228
MANGANESE (METAL) FLAKES	(CAS-No.) 7439-96-5	2 - 2.5	Flam. Sol. 1, H228 Water-react. 1, H260
Magnesium(Metal)	(CAS-No.) 7439-95-4 (EC-No.) 231-104-6 (EC Index-No.) 012-001-00-3	2 - 2	Pyr. Sol. 1, H250 Water-react. 1, H260
Selenium	(CAS-No.) 7782-49-2 (EC-No.) 231-957-4 (EC Index-No.) 034-001-00-2	2 - 2	Acute Tox. 3 (Inhalation), H331 Acute Tox. 3 (Oral), H301 Aquatic Chronic 4, H413

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures after inhalation : Assure fresh air breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- First-aid measures after skin contact : Wash with plenty of water/.... Get immediate medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Get medical advice/attention.

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

- Symptoms/effects : Causes severe skin burns and eye damage.

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

Treat symptomatically.

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water spray.

Unsuitable extinguishing media : Do not use extinguishing media containing water.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Use personal protective equipment as required.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Collect spillage.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Do not breathe vapours.

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NITRIC ACID (7697-37-2)		
Germany	Local name	Salpetersäure
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	2.6 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1 ppm
Germany	Remark (TRGS 900)	EU,13,16

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

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NITRIC ACID (7697-37-2)		
Portugal	Local name	Ácido nítrico
Portugal	OEL TWA (ppm)	2 ppm
Portugal	OEL STEL (ppm)	4 ppm
Spain	Local name	Ácido nítrico
Spain	VLA-EC (mg/m ³)	2.6 mg/m ³
Spain	VLA-EC (ppm)	1 ppm
Spain	Notes	(2007), VLI (Agente químico para el que la U.E. estableció en su día un valor límite indicativo. Todos estos agentes químicos figuran al menos en una de las directivas de valores límite indicativos publicadas hasta ahora (ver Anexo C. Bibliografía). Los estados miembros disponen de un tiempo fijado en dichas directivas para su transposición a los valores límites de cada país miembro. Una vez adoptados, estos valores tienen la misma validez que el resto de los valores adoptados por el país.)
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m ³)	2.6 mg/m ³
United Kingdom	WEL STEL (ppm)	1 ppm
USA - ACGIH	Local name	Nitric acid
USA - ACGIH	ACGIH TWA (ppm)	2 ppm
USA - ACGIH	ACGIH STEL (ppm)	4 ppm
USA - ACGIH	Remark (ACGIH)	URT & eye irr; dental erosion
USA - OSHA	Local name	Nitric acid
USA - OSHA	OSHA PEL (TWA) (mg/m ³)	5 mg/m ³
USA - OSHA	OSHA PEL (TWA) (ppm)	2 ppm

8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or face shield
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: [In case of inadequate ventilation] wear respiratory protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Green solution.
Odour	: No data available
Odour threshold	: No data available

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Direct sunlight. Air contact.

10.5. Incompatible materials

No additional information available

MULTIELEMENT STANDARD SOLUTION FOR ICP 33 COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

NITRIC ACID (7697-37-2)

Persistence and degradability	Not established.
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ARSENIC TRIOXIDE AR (1327-53-3)

Persistence and degradability	May cause long-term adverse effects in the environment.
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CADMIUM (METAL) GRANULAR 99.9% AR (7440-43-9)

Persistence and degradability	May cause long-term adverse effects in the environment.
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CHROMIUM TRIOXIDE AR (1333-82-0)

Persistence and degradability	May cause long-term adverse effects in the environment.
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MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

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ZINC (METAL) GRANULAR AR (7440-66-6)

Persistence and degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

NITRIC ACID (7697-37-2)

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
ARSENIC TRIOXIDE AR (1327-53-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
CADMIUM (METAL) GRANULAR 99.9% AR (7440-43-9)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
CHROMIUM TRIOXIDE AR (1333-82-0)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
LEAD (METAL) FOIL (7439-92-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

No additional information available

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 3264
UN-No. (IMDG)	: 3264
UN-No. (IATA)	: 3264
UN-No. (ADN)	: 3264
UN-No. (RID)	: 3264

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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Proper Shipping Name (IATA)	: Corrosive liquid, acidic, inorganic, n.o.s.
Proper Shipping Name (ADN)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Proper Shipping Name (RID)	: CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.
Transport document description (ADR)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II, (E)
Transport document description (IMDG)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (IATA)	: UN 3264 Corrosive liquid, acidic, inorganic, n.o.s., 8, II
Transport document description (ADN)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II
Transport document description (RID)	: UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S., 8, II

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 8

Danger labels (ADR) : 8



IMDG

Transport hazard class(es) (IMDG) : 8

Danger labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8

Hazard labels (IATA) : 8



ADN

Transport hazard class(es) (ADN) : 8

Danger labels (ADN) : 8



RID

Transport hazard class(es) (RID) : 8

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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Danger labels (RID) : 8



14.4. Packing group

Packing group (ADR) : II
Packing group (IMDG) : II
Packing group (IATA) : II
Packing group (ADN) : II
Packing group (RID) : II

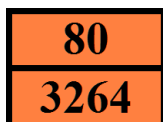
14.5. Environmental hazards

Dangerous for the environment : No
Marine pollutant : No
Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C1
Special provisions (ADR) : 274
Limited quantities (ADR) : 11
Excepted quantities (ADR) : E2
Packing instructions (ADR) : P001, IBC02
Mixed packing provisions (ADR) : MP15
Portable tank and bulk container instructions (ADR) : T11
Portable tank and bulk container special provisions (ADR) : TP2, TP27
Tank code (ADR) : L4BN
Vehicle for tank carriage : AT
Transport category (ADR) : 2
Hazard identification number (Kemler No.) : 80
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : 2X
APP code : B

- Transport by sea

Special provisions (IMDG) : 274
Packing instructions (IMDG) : P001
IBC packing instructions (IMDG) : IBC02
Tank instructions (IMDG) : T11

MULTIELEMENT STANDARD SOLUTION FOR ICP 33 COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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Tank special provisions (IMDG)	: TP2, TP27
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.

- Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y840
PCA limited quantity max net quantity (IATA)	: 0.5L
PCA packing instructions (IATA)	: 851
PCA max net quantity (IATA)	: 1L
CAO packing instructions (IATA)	: 855
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 8L

- Inland waterway transport

Classification code (ADN)	: C1
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP
Number of blue cones/lights (ADN)	: 0

- Rail transport

Classification code (RID)	: C1
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: 80

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains a substance on the REACH candidate list in concentration $\geq 0.1\%$ or with a lower specific limit: Diarsenic trioxide (EC 215-481-4, CAS 1327-53-3), Cadmium (EC 231-152-8, CAS 7440-43-9), Chromium trioxide (EC 215-607-8, CAS 1333-82-0), Lead (CAS 7439-92-1)

Contains REACH Annex XIV substances:

Substance name	Authorisation number	Sunset date	REACH authorisation exemptions
Diarsenic trioxide (EC 215-481-4, CAS 1327-53-3)		21/05/2015	
Chromium trioxide (EC 215-607-8, CAS 1333-82-0)		21/09/2017	

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WGK) 3, severe hazard to water (Classification according to AwSV, Annex 1)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : Beryllium,CADMIUM (METAL) GRANULAR 99.9% AR,CHROMIUM TRIOXIDE AR,RUBIDIUM CHLORIDE AR are listed

SZW-lijst van mutagene stoffen : CHROMIUM TRIOXIDE AR,RUBIDIUM CHLORIDE AR are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : CADMIUM (METAL) GRANULAR 99.9% AR,CHROMIUM TRIOXIDE AR,Selenium,LEAD (METAL) FOIL are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : CADMIUM (METAL) GRANULAR 99.9% AR,CHROMIUM TRIOXIDE AR,MANGANESE (METAL) FLAKES,LEAD (METAL) FOIL are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : CADMIUM (METAL) GRANULAR 99.9% AR,CHROMIUM TRIOXIDE AR,MANGANESE (METAL) FLAKES, Vanadium pentoxide,LEAD (METAL) FOIL are listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

MULTIELEMENT STANDARD SOLUTION FOR ICP 33 COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO₃ TRACEABLE TO NIST

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 1 (Oral)	Acute toxicity (oral), Category 1
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Aquatic Chronic 4	Hazardous to the aquatic environment — Chronic Hazard, Category 4
Carc. 1A	Carcinogenicity, Category 1A
Carc. 1B	Carcinogenicity (inhalation) Category 1B
Carc. 1B	Carcinogenicity, Category 1B
Carc. 2	Carcinogenicity, Category 2
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Sol. 1	Flammable solids, Category 1
Muta. 1B	Germ cell mutagenicity, Category 1B
Muta. 2	Germ cell mutagenicity, Category 2
Ox. Liq. 2	Oxidising Liquids, Category 2
Ox. Sol. 1	Oxidising Solids, Category 1
Ox. Sol. 2	Oxidising Solids, Category 2
Pyr. Sol. 1	Pyrophoric Solids, Category 1
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Resp. Sens. 1	Respiratory sensitisation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
Water-react. 1	Substances and Mixtures which, in contact with water, emit flammable gases, Category 1

MULTIELEMENT STANDARD SOLUTION FOR ICP 33

COMPONENTS;100mg/l

Al,Ag,As,B,Ba,Be,Bi,Ca,Cd,Cs,Co,Cr,Cu,Fe,In,K,Li,Mg,Mn,Mo,Na,Ni,Nb,Pb,Rb,Sb,Sr,Ti,Tl,V,U,Zn IN 5% HNO3 TRACEABLE TO NIST

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H228	Flammable solid.
H250	Catches fire spontaneously if exposed to air.
H260	In contact with water releases flammable gases which may ignite spontaneously.
H271	May cause fire or explosion; strong oxidiser.
H272	May intensify fire; oxidiser.
H300	Fatal if swallowed.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
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.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H340	May cause genetic defects.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product