Single-element Standard Solution for ICP. Mercury (Hg) 1000mg/l in HNO3 10%

Safety Data Sheet

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

Date of issue: 28/03/2013 Revision date: 25/09/2017 : Version: 1.4

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

1.1. Product identifier

Product form : Mixture

Product name : Single-element Standard Solution for ICP. Mercury (Hg) 1000mg/l in HNO3 10%

Product code : S024

Product group : Blend

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

1.2.1. Relevant identified uses

Main use category : Industrial use,Professional use

Use of the substance/mixture : Certified reference material for laboratory use

Function or use category : Laboratory chemicals

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Spectracer UK Ltd.
Second Floor,
27 Gloucester Place,
London,
W1U 8HU,
United Kingdom.

Tel: +44 (0) 207 193 9114
Fax:+44 (0) 203 432 4686
Email: contact@spectracer.co.uk
Web: www.spectracer.com

1.4. Emergency telephone number

Emergency number : Tel: +44(0)1933 445260 Option 1. Language: English only.
For Chemical Emergencies Only
Llewellyn (Safety Advisors) Europe Ltd

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964	
United Kingdom	National Poisons Information Service (NHS Direct)	http://www.npis.org	111 (England & Wales only) or 112 (EU) or 08454 24 24 24 (Scotland)	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 1B	H314
Specific target organ toxicity — Repeated exposure, Category 2	H373

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

Adverse physicochemical, human health and environmental effects

May be corrosive to metals. May cause damage to organs through prolonged or repeated exposure. Causes severe skin burns and eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :

GHS05 GHS08

Signal word (CLP) : Danger

Hazardous ingredients : mercury nitrate; nitric acid

Hazard statements (CLP) : H290 - May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H373 - May cause damage to organs through prolonged or repeated exposure

Precautionary statements (CLP) : P234 - Keep only in original packaging
P260 - Do not breathe dust/fume/gas/mist/vapours/spray
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
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 or doctor
P390 - Absorb spillage to prevent material damage
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

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 (REACH-no) 01-2119487297-23-XXXX	5 - 15	Ox. Liq. 2, H272 Met. Corr. 1, H290 Skin Corr. 1A, H314
mercury nitrate	(CAS-No.) 10045-94-0 (EC-No.) 233-152-3 (EC Index-No.) 080-002-00-6	0,1 - 0,5	Acute Tox. 2 (Oral), H300 Acute Tox. 2 (Dermal), H310 STOT RE 2, H373 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410

Specific concentration limits:

Name	Product identifier	Specific concentration limits
nitric acid	(CAS-No.) 7697-37-2 (EC-No.) 231-714-2 (EC Index-No.) 007-004-00-1 (REACH-no) 01-2119487297-23-XXXX	(5 =<C < 20) Skin Corr. 1B, H314 (C >= 20) Skin Corr. 1A, H314 (C >= 65) Ox. Liq. 3, H272
mercury nitrate	(CAS-No.) 10045-94-0 (EC-No.) 233-152-3 (EC Index-No.) 080-002-00-6	(C >= 0,1) STOT RE 2, H373

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact : Burns.

Symptoms/effects after eye contact : Serious damage to eyes.

Symptoms/effects after ingestion : Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes. Wear personal protective equipment.

Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in corrosive resistant container with a resistant inner liner. Keep only in original container. Store locked up. Store in a well-ventilated place. Keep cool.

Incompatible materials : Metals.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

mercury nitrate (10045-94-0)		
EU	Local name	Mercury
EU	IOELV TWA (mg/m³)	0,02 mg/m³ (Mercury, divalent inorganic compounds; EU; Time-weighted average exposure limit 8 h; Indicative occupational exposure limit value)
Austria	Local name	Quecksilber und anorganische Quecksilberverbindungen
Austria	MAK (mg/m³)	0,02 mg/m³
Austria	MAK Short time value (mg/m³)	0,08 mg/m³
Austria	Remark (AT)	H,Sh
Belgium	Local name	Mercure (composés alkylés) (en Hg) # Kwik (alkylverbindingen) (als Hg)
Belgium	Limit value (mg/m³)	2 mg/m³ (Mercure et composés inorganiques bivalents du mercure, y compris l'oxyde de mercure et le chlorure mercurique (mesurés comme mercure) (8); Belgium; Time-weighted average exposure limit 8 h)
Belgium	Short time value (mg/m³)	0,03 mg/m³
Belgium	Remark (BE)	D: La mention D signifie que la résorption de l'agent, via la peau, les muqueuses ou les yeux, constitue une partie importante de l'exposition totale. Cette résorption peut se faire tant par contact direct que par présence de l'agent dans l'air. # De vermelding D betekent dat de opname van het agens via de huid, de slijmvliezen of de ogen een belangrijk deel van de totale blootstelling vormt. Deze opname kan het gevolg zijn van zowel direct contact als zijn aanwezigheid in de lucht.
Bulgaria	Local name	Живак
Bulgaria	OEL TWA (mg/m³)	0,02 mg/m³ Живак и двувалентни неорганични живачни съединения, включително живачен окис и живачен хлорид (измерени като живак) 0,05 mg/m³ Пари на метала в елементно състояние 0,1 mg/m³ Неорганични и арилни съединения 0,01 mg/m³ Органични и алкилни съединения
Croatia	Local name	Živa anorganski spojevi (kao Hg)
Croatia	GVI (granična vrijednost izloženosti) (mg/m³)	0,05 mg/m³
Croatia	Naznake (HR)	T (otrovno); N (opasno za okoliš)
Czech Republic	Local name	Rtu
Czech Republic	Expoziční limity (PEL) (mg/m³)	0,05 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	0,006 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	0,15 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	0,018 ppm
Czech Republic	Remark (CZ)	D, P
Denmark	Local name	Kviksølv og uorganiske forbindelser inkl. dampe
Denmark	Grænseværdie (langvarig) (mg/m³)	0,02 mg/m³ beregnet som Hg
Denmark	Anmærkninger (DK)	H (betyder, at stoffet kan optages gennem huden)
Finland	Local name	Elohopea, metalli
Finland	HTP-arvo (8h) (mg/m³)	0,02 mg/m³
Finland	Huomautus (FI)	Iho, Hg, melu
France	Local name	Mercure et composés bivalents du mercure, y compris l'oxyde de mercure et le chlorure mercurique
France	VME (mg/m³)	0,02 mg/m³
France	Note (FR)	Valeurs règlementaires contraignantes; certains ou tous ces composés sont classés C1a, C1b ou C2 et M1a, M1b ou M2
Germany	Local name	Quecksilber

mercury nitrate (10045-94-0)		
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	0,02 mg/m³
Germany	Remark (TRGS 900)	EU,DFG,,H,Sh
Greece	OEL TWA (mg/m³)	0,1 mg/m³
Hungary	Local name	HIGANY ÉS SZERVETLEN VEGYÜLETEI*** (Hg-ra számítva)
Hungary	AK-érték	0,02 mg/m³
Hungary	Megjegyzések (HU)	sz, b; III.
Ireland	Local name	Mercury & divalent inorganic mercury compounds
Ireland	OEL (8 hours ref) (mg/m³)	0,02 mg/m³
Ireland	Notes (IE)	IOELV, Repr.1B
Latvia	Local name	Dzīvsudrabsuntā neorganiskie savienojumi(pēc dzīvsudraba)
Latvia	OEL TWA (mg/m³)	0,02 mg/m³
Netherlands	Grenswaarde TGG 8H (mg/m³)	0,02 mg/m³ (Kwik en tweewaardige anorganische kwikverbindingen (gemeten als kwik); Netherlands; Time-weighted average exposure limit 8 h; Public occupational exposure limit value; als Hg)
Poland	Local name	Rtęć , pary i jej związki nieorganiczne w przeliczeniu na Hg
Poland	NDS (mg/m³)	0,02 mg/m³
Portugal	Local name	Mercúrio, compostos alquíl, expresso em Hg
Portugal	OEL TWA (mg/m³)	0,01 mg/m³ 0,1 mg/m³ 0,025 mg/m³
Portugal	OEL STEL (mg/m³)	0,03 mg/m³
Romania	Local name	Mercur
Romania	OEL TWA (mg/m³)	0,05 mg/m³
Romania	OEL STEL (mg/m³)	0,15 mg/m³
Slovakia	Local name	Ortuť a bivalentné anorganické zlúčeniny vrátane oxidu ortuťnatého a chloridu ortuťnatého (ako Hg)
Slovakia	NPHV (priemerná) (mg/m³)	0,1 mg/m³
Slovenia	Local name	živo srebro
Slovenia	OEL TWA (mg/m³)	0,02 mg/m³
Spain	Local name	Mercurio
Spain	VLA-ED (mg/m³)	0,02 mg/m³ elemental 0,02 mg/m³ Compuestos inorgánicos divalentes de mercurio, como Hg 0,01 mg/m³ Alquil-compuestos, como Hg 0,1 mg/m³ Aril-compuestos, como Hg
Spain	VLA-EC (mg/m³)	0,03 mg/m³ Alquil-compuestos, como Hg

mercury nitrate (10045-94-0)		
Spain	Notes	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), VLB® (Agente químico que tiene Valor Límite Biológico específico en este documento), Hg (El mercurio es una sustancia con efectos sanitarios acumulativos posiblemente graves. En consecuencia, la evaluación de la exposición debería complementarse con una vigilancia sanitaria con control biológico de acuerdo con el artículo 6 del RD 374/2001), s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf), r (Esta sustancia tiene establecidas restricciones a la fabricación, la comercialización o el uso en los términos especificados en el “Reglamento (CE) nº 1907/2006 sobre Registro, Evaluación, Autorización y Restricción de sustancias y preparados químicos” (REACH) de 18 de diciembre de 2006 (DOUE L 369 de 30 de diciembre de 2006). Las restricciones de una sustancia pueden aplicarse a todos los usos o sólo a usos concretos. El anexo XVII del Reglamento REACH contiene la lista de todas las sustancias restringidas y especifica los usos que se han restringido), TR1B (Cuando las pruebas utilizadas para la clasificación procedan principalmente de datos en animales).
Sweden	Local name	Kvicksilver, och oorg. föreningar (som Hg)
Sweden	nivågränsvärde (NVG) (mg/m³)	0,02 mg/m³ inhalerbart damm
Sweden	Anmärkning (SE)	B (Ämnet kan orsaka hörselskada Exponering för ämnet nära det befintliga yrkeshygieniska gränsvärdet och vid samtidig exponering för buller nära insatsvärdet 80 dB kan orsaka hörselskada); 2 (Med inhalerbart damm menas den dammfraktion som definieras i svensk standard SS-EN 481, Arbetsplatsluft – Partikelstorleksfraktioner för mätning av luftburna partiklar, Utgåva 1, 1993, punkt 2.3 och som har en provtagningskaraktäristik enligt punkt 5.1)
United Kingdom	Local name	Mercury
United Kingdom	WEL TWA (mg/m³)	0,02 mg/m³ Mercury divalent inorganic compounds including mercuric oxide and mercuric chloride (measured as mercury); United Kingdom; Time-weighted average exposure limit 8 h; Workplace exposure limit (EH40/2005)
Iceland	Local name	Kvikasilfur og ólífræn sambönd þess, þar með talin gufa sem Hg
Iceland	OEL (8 hours ref) (mg/m³)	0,025 mg/m³
Iceland	Notes (IS)	H
Switzerland	Local name	Quecksilber (Dampf u. Aerosol)
Switzerland	MAK (mg/m³)	0,05 mg/m³ 0,01 mg/m³ 0,02 mg/m³
Switzerland	MAK (ppm)	0,005 ppm

mercury nitrate (10045-94-0)		
Switzerland	KZGW (mg/m³)	0,4 mg/m³ 0,16 mg/m³
Switzerland	KZGW (ppm)	0,04 ppm
Switzerland	Remark (CH)	S B - ZNS, Niere - HSE, NIOSH, OSHA
Australia	Local name	Mercury, elemental vapour (as Hg)
Australia	TWA (mg/m³)	0,025 mg/m³
Australia	TWA (ppm)	0,003 ppm
USA - ACGIH	ACGIH TWA (mg/m³)	0,025 mg/m³ (Mercury, Inorganic forms, as Hg; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
nitric acid (7697-37-2)		
EU	Local name	Nitric acid
EU	IOELV STEL (mg/m³)	2,6 mg/m³ (Nitric acid; EU; Short time value; Indicative occupational exposure limit value)
EU	IOELV STEL (ppm)	1 ppm (Nitric acid; EU; Short time value; Indicative occupational exposure limit value)
Austria	Local name	Salpetersäure
Austria	MAK Short time value (mg/m³)	2,6 mg/m³
Austria	MAK Short time value (ppm)	1 ppm
Belgium	Local name	Acide nitrique # Salpeterzuur
Belgium	Short time value (mg/m³)	2,6 mg/m³
Belgium	Short time value (ppm)	1 ppm
Bulgaria	Local name	Азотна киселина
Bulgaria	OEL STEL (mg/m³)	2,6 mg/m³
Bulgaria	OEL STEL (ppm)	1 ppm
Croatia	Local name	Dušična kiselina
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (mg/m³)	2,6 mg/m³
Croatia	KGVI (kratkotrajna granična vrijednost izloženosti) (ppm)	1 ppm
Croatia	Naznake (HR)	EU** (naznaka da se radi o tvarima za koje su utvrđene indikativne granične vrijednosti izloženosti prema Direktivi 2006/15/ EC (druga lista)); O (oksidirajuće); C (nagrizajuće)
Czech Republic	Local name	Kyselina dusi ná
Czech Republic	Expoziční limity (PEL) (mg/m³)	1 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	0,39 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	2,5 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	1 ppm
Denmark	Local name	Salpetersyre
Denmark	Grænseværdie (kortvarig) (mg/m³)	2,6 mg/m³
Denmark	Grænseværdie (kortvarig) (ppm)	1 ppm
Denmark	Anmærkninger (DK)	E (betyder, at stoffet har en EF-grænseværdi); S (betyder, at grænseværdien ikke bør overskrides. Værdien gælder for en eksponeringsperiode på 15 minutter)
Estonia	Local name	Lämmastikhape
Estonia	OEL STEL (mg/m³)	2,6 mg/m³
Estonia	OEL STEL (ppm)	1 ppm
Finland	Local name	Typpihappo
Finland	HTP-arvo (8h) (mg/m³)	1,3 mg/m³
Finland	HTP-arvo (8h) (ppm)	0,5 ppm
Finland	HTP-arvo (15 min)	2,6 mg/m³

nitric acid (7697-37-2)		
Finland	HTP-arvo (15 min) (ppm)	1 ppm
France	Local name	Acide nitrique
France	VLE (mg/m³)	2,6 mg/m³
France	VLE (ppm)	1 ppm
France	Note (FR)	Valeurs règlementaires indicatives
Germany	Local name	Salpetersäure
Germany	TRGS 900 Occupational exposure limit value (mg/m³)	2,6 mg/m³
Germany	TRGS 900 Occupational exposure limit value (ppm)	1 ppm
Germany	Remark (TRGS 900)	EU,13,16
Greece	OEL STEL (mg/m³)	2,6 mg/m³
Greece	OEL STEL (ppm)	1 ppm
Hungary	Local name	SALÉTROMSAV
Hungary	CK-érték	2,6 mg/m³
Hungary	Megjegyzések (HU)	i, m; I.
Ireland	Local name	Nitric acid
Ireland	OEL (15 min ref) (mg/m3)	2,6 mg/m³
Ireland	OEL (15 min ref) (ppm)	1 ppm
Ireland	Notes (IE)	IOELV
Italy	Local name	Acido nitrico
Italy	OEL STEL (mg/m³)	2,6 mg/m³
Italy	OEL STEL (ppm)	1 ppm
Latvia	Local name	Slāpekļskābe
Latvia	OEL TWA (mg/m³)	2 mg/m³
Latvia	OEL TWA (ppm)	0,78 ppm
Latvia	OEL STEL (mg/m³)	2,6 mg/m³
Latvia	OEL STEL (ppm)	1 ppm
Lithuania	Local name	Nitrato rūgštis (azoto rūgštis)
Lithuania	TPRV (mg/m³)	2,6 mg/m³
Lithuania	TPRV (ppm)	1 ppm
Luxembourg	Local name	Acide nitrique
Luxembourg	OEL STEL (mg/m³)	2,6 mg/m³
Luxembourg	OEL STEL (ppm)	1 ppm
Malta	Local name	Nitric acid
Malta	OEL STEL (mg/m³)	2,6 mg/m³
Malta	OEL STEL (ppm)	1 ppm
Netherlands	Local name	Salpeterzuur
Netherlands	Grenswaarde TGG 15MIN (mg/m³)	1,3 mg/m³
Netherlands	Grenswaarde TGG 15MIN (ppm)	0,5 ppm (Salpeterzuur; Netherlands; Short time value; Public occupational exposure limit value)
Poland	Local name	Kwas azotowy(V)
Poland	NDS (mg/m³)	1,4 mg/m³
Poland	NDSCh (mg/m³)	2,6 mg/m³
Portugal	Local name	Ácido nítrico
Portugal	OEL TWA (ppm)	2 ppm
Portugal	OEL STEL (ppm)	4 ppm
Romania	Local name	Acid nitric
Romania	OEL STEL (mg/m³)	2,6 mg/m³
Romania	OEL STEL (ppm)	1 ppm
Slovakia	Local name	Kyselina dusičná

nitric acid (7697-37-2)		
Slovakia	OEL STEL (mg/m³)	2,6 mg/m³
Slovakia	OEL STEL (ppm)	1 ppm
Slovenia	Local name	dušikova kislina
Slovenia	OEL TWA (mg/m³)	2,6 mg/m³
Slovenia	OEL TWA (ppm)	1 ppm
Slovenia	OEL STEL (mg/m³)	2,6 mg/m³
Slovenia	OEL STEL (ppm)	1 ppm
Spain	Local name	Ácido nítrico
Spain	VLA-EC (mg/m³)	2,6 mg/m³
Spain	VLA-EC (ppm)	1 ppm
Spain	Notes	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).
Sweden	Local name	Salpetersyra
Sweden	nivågränsvärde (NVG) (mg/m³)	1,3 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	0,5 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	2,6 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	1 ppm
United Kingdom	Local name	Nitric acid
United Kingdom	WEL STEL (mg/m³)	2,6 mg/m³
United Kingdom	WEL STEL (ppm)	1 ppm
Iceland	Local name	Saltpéturssýra
Iceland	OEL (15 min ref) (mg/m3)	2,6 mg/m³
Iceland	OEL (15 min ref) (ppm)	1 ppm
Norway	Local name	Salpetersyre
Norway	Grenseverdier (AN) (mg/m³)	5 mg/m³
Norway	Grenseverdier (AN) (ppm)	2 ppm
Norway	Merknader (NO)	E (EU har en veiledende grenseverdi for stoffet)
Switzerland	Local name	Salpetersäure
Switzerland	MAK (mg/m³)	5 mg/m³
Switzerland	MAK (ppm)	2 ppm
Switzerland	KZGW (mg/m³)	5 mg/m³
Switzerland	KZGW (ppm)	2 ppm
Switzerland	Remark (CH)	OAW & Auge, Zahn - NIOSH, OSHA
Australia	Local name	Nitric acid
Australia	TWA (mg/m³)	5,2 mg/m³
Australia	TWA (ppm)	2 ppm
Australia	STEL (mg/m³)	10 mg/m³
Australia	STEL (ppm)	4 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/m³)	5 mg/m³

nitric acid (7697-37-2)		
USA - OSHA	OSHA PEL (TWA) (ppm)	2 ppm

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing.

Hand protection : Protective gloves

Eye protection : Safety glasses

Skin and body protection : Wear suitable protective clothing

Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : No data available

Odour : No data available

Odour threshold : No data available

pH : < 2

Relative evaporation rate (butylacetate=1) : No data available

Melting point : Not applicable

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) : Not applicable

Vapour pressure : No data available

Relative vapour density at 20 °C : No data available

Relative density : No data available

Solubility : Miscible with water.

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

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

metals.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

mercury nitrate (10045-94-0)	
LD50 oral rat	26 mg/kg (Rat)
LD50 dermal rat	75 mg/kg (Rat)

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: < 2

Serious eye damage/irritation : Serious eye damage, category 1, implicit
pH: < 2

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 : May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.

mercury nitrate (10045-94-0)	
LC50 fish 2	0,033 ppm (LC50; 96 h)
EC50 Daphnia 1	0,0052 mg/l (EC50; 48 h)
Threshold limit algae 1	0,4 ppm (EC50)

nitric acid (7697-37-2)	
LC50 fish 2	72 ppm (LC50; 96 h)
EC50 Daphnia 1	180 mg/l (EC50; 48 h)
Threshold limit algae 1	> 19 mg/l (EC0)

12.2. Persistence and degradability

mercury nitrate (10045-94-0)	
Persistence and degradability	Biodegradability: Not applicable. Biodegradability in soil: Not applicable. Adsorbs into the soil.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable

nitric acid (7697-37-2)	
Persistence and degradability	Biodegradability: Not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable

nitric acid (7697-37-2)	
ThOD	Not applicable

12.3. Bioaccumulative potential

mercury nitrate (10045-94-0)	
Bioaccumulative potential	bioaccumulable.

nitric acid (7697-37-2)	
BCF fish 1	<= 1 (BCF)
Log Pow	-2,3 (OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method)
Bioaccumulative potential	Bioaccumulation: Not applicable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Ecology - waste materials : Avoid release to the environment.

European List of Waste (LoW) code : 16 05 06* - laboratory chemicals consisting of or containing dangerous substances including mixtures of laboratory chemicals

HP Code : H8 - 'Corrosive': substances and preparations which may destroy living tissue on contact.

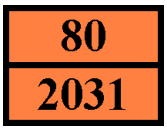
SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
2031	2031	2031	2031	2031
14.2. UN proper shipping name				
NITRIC ACID	NITRIC ACID	Nitric acid (Nitric acid other than red fuming, with not more than 20% nitric acid)	NITRIC ACID	NITRIC ACID
Transport document description				
UN 2031 NITRIC ACID, 8, II, (E)	UN 2031 NITRIC ACID, 8, II	UN 2031 Nitric acid (Nitric acid other than red fuming, with not more than 20% nitric acid), 8, II	UN 2031 NITRIC ACID, 8, II	UN 2031 NITRIC ACID, 8, II
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR)	:	C1
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP15
Portable tank and bulk container instructions (ADR)	:	T8
Portable tank and bulk container special provisions (ADR)	:	TP2
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	:	2P
APP code	:	B

- Transport by sea

Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
Special packing provisions (IMDG)	:	PP81
IBC packing instructions (IMDG)	:	IBC02
IBC special provisions (IMDG)	:	B15, B20
Tank instructions (IMDG)	:	T8
Tank special provisions (IMDG)	:	TP2
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-B
Stowage category (IMDG)	:	D
Segregation (IMDG)	:	SG6, SG16, SG17, SG19
Properties and observations (IMDG)	:	Colourless liquid.Oxidant; may cause fire in contact with organic materials such as wood, cotton or straw, evolving highly toxic gases (brown fumes). Highly corrosive to most metals. Causes severe 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
ERG code (IATA)	:	8L

- Inland waterway transport

Classification code (ADN)	:	C1
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
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Special packing provisions (RID)	: PP81, B15
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T8
Portable tank and bulk container special provisions (RID)	: TP2
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

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	nitric acid
3(a) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F	nitric acid
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	nitric acid
18. Mercury compounds	mercury nitrate

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference	: Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)
Storage class (LGK)	: LGK 8B - Non-combustible corrosive substances
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	: None of the components are listed
SZW-lijst van mutagene stoffen	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding	: None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	: None of the components are listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components 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

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Met. Corr. 1	Corrosive to metals, Category 1
Ox. Liq. 2	Oxidising Liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H272	May intensify fire; oxidiser
H290	May be corrosive to metals
H300	Fatal if swallowed
H310	Fatal in contact with skin
H314	Causes severe skin burns and eye damage
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

SDS EU Mod H F (REACH ANNEX II)

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.