

according to Regulation (EC) No 1907/2006

Mercury stock solution B 10 mg Hg/l stabilized with potassium bromide and potassium bromate for dete

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

1.1. Product identifier

Mercury stock solution B 10 mg Hg/l stabilized with potassium bromide and potassium bromate for dete

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

Use of the substance/mixture

Laboratory chemicals

Industrial uses: Uses of substances as such or in preparations at industrial sites

Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

Uses advised against

Do not use for private purposes (household).

1.3. Details of the supplier of the safety data sheet

Company name: AnalytiChem GmbH

ACD

Street: Stempelstraße 6
Place: D-47167 Duisburg

Telephone: 0203/5194-0 Telefax: 0203/5194-290

E-mail: info@analytichem.de

Contact person: Abteilung Produktsicherheit Telephone: 0203/5194-107/117

E-mail: produktsicherheit@analytichem.de

Internet: www.analytichem.de

Responsible Department: Abteilung Produktsicherheit

1.4. Emergency telephone For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire,

<u>number:</u> Exposure, or Accident Call CHEMTREC Day or Night Within USA and Canada:

1-800-424-9300 Outside USA and Canada: +1 703-741-5970 (collect calls

accepted)

Further Information

This product is a mixture. REACH Registration Number see section 3.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Met. Corr. 1; H290

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Signal word: Warning

Pictograms:



Hazard statements

H290 May be corrosive to metals.

Precautionary statements

P234 Keep only in original packaging.

P390 Absorb spillage to prevent material damage.



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P406

Store in a corrosion-resistant container with a resistant inner liner.

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixtures in aqueous solution

Relevant ingredients

CAS No	Chemical name				
	EC No	Index No	REACH No		
	Classification (Regulation (EC) No	1272/2008)	•		
7647-01-0	Hydrochloric acid			< 1 %	
	231-595-7	017-002-01-X	01-2119484862-27		
Skin Corr. 1B, STOT SE 3; H314 H335					
7697-37-2	nitric acid				
	231-714-2	007-030-00-3	01-2119487297-23		
	Ox. Liq. 3, Met. Corr. 1, Acute Tox.	3, Skin Corr. 1A; H272 H290 H331	H314 EUH071		
7758-01-2	potassium bromate			< 0.01 %	
	231-829-8	035-003-00-6	01-2119518844-34		
	Ox. Sol. 1, Carc. 1B, Acute Tox. 3; H271 H350 H301				

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc.	Limits, M-factors and ATE	
7647-01-0	231-595-7	Hydrochloric acid	< 1 %
	· · · · · · · · · · · · · · · · · · ·	H314: >= 25 - 100 Skin Irrit. 2; H315: >= 10 - < 25 Eye Irrit. 2; H319: >= 10 - < 3; H335: >= 10 - 100	
7697-37-2	231-714-2	nitric acid	< 0.1 %
		E 2,65 mg/l (vapours) Ox. Liq. 3; H272: >= 65 - 100 Skin Corr. 1A; H314: >= 20 orr. 1B; H314: >= 5 - < 20	
7758-01-2	231-829-8	potassium bromate	< 0.01 %
	oral: LD50 = 1	57 mg/kg	

Further Information

This product does not contain substances of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 57 above the respective regulatory concentration limit of = 0.1 % (w/w).

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Avoid contact with skin, eyes and clothes. Take off immediately all contaminated clothing.

After inhalation

Provide fresh air. @0202.B020278



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After contact with skin

Wash immediately with: Water

Take off immediately all contaminated clothing and wash it before reuse.

Call a physician immediately.

After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Remove contact lenses, if present and easy to do. Continue rinsing.

Protect uninjured eye.

After ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting. Do not allow a neutralisation agent to be drunk.

Call a physician immediately.

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

No data available

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

No data available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

no restriction

5.2. Special hazards arising from the substance or mixture

Non-combustible liquids

Hazardous combustion products

In case of fire may be liberated:

Hydrogen chloride (HCI)

mercury (Hg).

5.3. Advice for firefighters

In case of fire: Wear self-contained breathing apparatus.

In case of fire and/or explosion do not breathe fumes.

Avoid contact with skin, eyes and clothes.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General advice

Corrosive to metals.

For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

Emergency procedures



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Consult an expert

Do not breathe dust/fume/gas/mist/vapours/spray.

For emergency responders

Precautionary statements For emergency responders: Personal protection equipment: see section 8

6.2. Environmental precautions

Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

For containment

Cover drains.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Collect in closed and suitable containers for disposal.

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

For cleaning up

Clean contaminated articles and floor according to the environmental legislation.

Other information

Provide adequate ventilation.

Do not breathe dust/fume/gas/mist/vapours/spray.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Read label before use. Handle and open container with care.

When using do not eat, drink, smoke, sniff.

Use personal protection equipment. Use extractor hood (laboratory).

Provide adequate ventilation.

Avoid contact with skin, eyes and clothes.

Advice on protection against fire and explosion

Usual measures for fire prevention.

Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs. Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink. Avoid: aerosol or mist formation Do not breathe vapour/aerosol.

Further information on handling

Draw up and observe skin protection programme.

Wash hands and face before breaks and after work and take a shower if necessary.

Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Corrosive to metals.

Unsuitable container/equipment material: Metal

Further information on storage conditions

The product develops hydrogen in an aqueous solution in contact with metals.



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7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7647-01-0	Hydrogen chloride	5	8		TWA (8 h)	
		10	15		STEL (15 min)	
7697-37-2	Nitric acid	1	2.6		STEL (15 min)	

DNEL/DMEL values

CAS No	Substance			
DNEL type		Exposure route	Effect	Value
7647-01-0	Hydrochloric acid			
Worker DNEL,	Worker DNEL, long-term		local	8 mg/m³
Worker DNEL, acute		inhalation	local	15 mg/m³
Consumer DNEL, long-term		inhalation	local	8 mg/m³
Consumer DNEL, acute		inhalation	local	15 mg/m³

8.2. Exposure controls

Appropriate engineering controls

Technical measures and the application of suitable work processes have priority over personal protection equipment.

If handled uncovered, arrangements with local exhaust ventilation have to be used.

Individual protection measures, such as personal protective equipment

Eye/face protection

goggles

Wear eye/face protection.

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Skin protection

Wear suitable protective clothing. Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

The choice of body protection depends on the concentration and quantity of hazardous substances. The chemical resistance of protective agents must be clarified with their suppliers.

Respiratory protection

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

The entrepeneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Environmental exposure controls

Do not allow to enter into surface water or drains.



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid Colour: yellow Odour: odourless

Melting point/freezing point: No data available Boiling point or initial boiling point and No data available

boiling range:

Flammability: No data available Lower explosion limits: No data available Upper explosion limits: No data available Flash point: No data available Auto-ignition temperature: No data available Decomposition temperature: No data available pH-Value: acidic Viscosity / kinematic: No data available Water solubility: completely miscible

Solubility in other solvents

No data available

Partition coefficient n-octanol/water: No data available Vapour pressure: No data available Vapour pressure: No data available Density: 1,001 g/cm³ Bulk density: No data available Relative vapour density: No data available

9.2. Other information

Information with regard to physical hazard classes

Explosive properties No data available

Sustaining combustion:

No data available

Self-ignition temperature

Solid: No data available No data available Gas:

Other safety characteristics

Evaporation rate: No data available Solvent separation test: No data available Solvent content:

Solid content: 0 No data available Sublimation point: Softening point: No data available No data available Pour point:

No data available:

Viscosity / dynamic: No data available No data available Flow time:

Further Information No data available

SECTION 10: Stability and reactivity



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10.1. Reactivity

Corrosive to metals.

10.2. Chemical stability

No data available

10.3. Possibility of hazardous reactions

Alkali (lye)

The product develops hydrogen in an aqueous solution in contact with metals.

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Metal

The product develops hydrogen in an aqueous solution in contact with metals.

10.6. Hazardous decomposition products

In case of fire may be liberated:

SECTION 5: Firefighting measures

Further information

No data available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name	Chemical name				
	Exposure route	Dose	Species	Source	Method	
7697-37-2	nitric acid	nitric acid				
	inhalation vapour	ATE 2,65 mg/l				
7758-01-2	potassium bromate	potassium bromate				
	oral	LD50 157 mg/kg		Eisei Kaguku 1991, 37, (4), 258-265. (19	OECD Guideline 401	

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

Based on available data, the classification criteria are not met.

STOT-repeated exposure

Based on available data, the classification criteria are not met.



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Aspiration hazard

Based on available data, the classification criteria are not met.

Specific effects in experiment on an animal

There are no data available on the preparation/mixture itself.

Additional information on tests

There are no data available on the preparation/mixture itself.

Practical experience

There are no data available on the preparation/mixture itself.

11.2. Information on other hazards

Other information

There are no data available on the preparation/mixture itself.

Further information

There are no data available on the preparation/mixture itself.

SECTION 12: Ecological information

12.1. Toxicity

CAS No	Chemical name						
	Aquatic toxicity	Dose		[h] [d]	Species	Source	Method
7647-01-0	Hydrochloric acid						
	Acute fish toxicity	LC50	862 mg/l	96 h	Leuciscus idus		
7697-37-2	nitric acid						
	Acute fish toxicity	LC50 mg/l	1559	96 h	Topeka shiner	Environmental Toxicology and Chemistry,	other: ASTM E729-26
	Fish toxicity	NOEC	268 mg/l	30 d	juvenile Topeka shiner and with juvenile Fathead m	Study report (2009)	Growth tests estimated the test chemical
	Algae toxicity	NOEC mg/l	> 419	· ·	several benthic diatoms; see results	Marine Biology 43:307-315 (1977)	Ten cultures of benthic diatoms were iso
	Acute bacteria toxicity	EC50 mg/l ()	> 1000	3 h	Activated sludge	Study report (2008)	OECD Guideline 209
7758-01-2	potassium bromate						
	Acute algae toxicity	ErC50 mg/l	> 100	72 h	Desmodesmus subspicatus	Study report (2010)	OECD Guideline 201

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

There are no data available on the mixture itself.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.



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Further information

Do not allow to enter into surface water or drains.

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal recommendations

Waste disposal according to directive 2008/98/EC, covering waste and dangerous waste.

Send to a physico-chemical treatment facility under observation of official regulations.

Do not allow to enter into surface water or drains.

Contaminated packaging

Handle contaminated packages in the same way as the substance itself.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

SECTION 14: Transport information

Land transport (ADR/RID)

1/1	UN number or ID number:	UN 1789
14.1.	ON HUMBER OF ID HUMBER.	UN 1709

14.2. UN proper shipping name: HYDROCHLORIC ACID

14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: 8 Classification code: C1 **Special Provisions:** 520 Limited quantity: 5 I Excepted quantity: E1 Transport category: 3 Hazard No: 80 Tunnel restriction code: Ε

Inland waterways transport (ADN)

14.1. UN number or ID number: UN 1789

14.2. UN proper shipping name: HYDROCHLORIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Classification code:C1Special Provisions:520Limited quantity:5 LExcepted quantity:E1

Marine transport (IMDG)

14.1. UN number or ID number: UN 1789

14.2. UN proper shipping name: HYDROCHLORIC ACID

14.3. Transport hazard class(es):814.4. Packing group:IIIHazard label:8Special Provisions:223Limited quantity:5 LExcepted quantity:E1EmS:F-A, S-B



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Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: LIN 1789

HYDROCHLORIC ACID 14.2. UN proper shipping name:

14.3. Transport hazard class(es): 14.4. Packing group: Ш Hazard label: R **Special Provisions:** A3 A803

Limited quantity Passenger: 1 L Passenger LQ: Y841 Excepted quantity: E1

IATA-packing instructions - Passenger: 852 IATA-max. quantity - Passenger: 5 L IATA-packing instructions - Cargo: 856 IATA-max. quantity - Cargo: 60 L

SECTION 15: Regulatory information

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

EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 28, Entry 75

Marketing and use of explosives precursors (Regulation (EU) 2019/1148):

This product is regulated by Regulation (EU) 2019/1148: all suspicious transactions, and significant disappearances and thefts should be reported to the relevant national contact point.

National regulatory information

Water hazard class (D): 1 - slightly hazardous to water

SECTION 16: Other information

Abbreviations and acronyms

Ox. Liq: Oxidising liquid Ox. Sol: Oxidising solid

Met. Corr: Substance or mixture corrosive to metals

Acute Tox: Acute toxicity Skin Corr: Skin corrosion Carc: Carcinogenicity

STOT SE: Specific target organ toxicity - single exposure

Classification for mixtures and used evaluation method according to Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Met. Corr. 1; H290	On basis of test data

Re

Corr. 1; H290	On basis of test data
elevant H and EUH statements (number and full text)	
H271 May	cause fire or explosion; strong oxidiser.

May be corrosive to metals. H290 H301 Toxic if swallowed.

Causes severe skin burns and eye damage. H314

May intensify fire; oxidiser.

Toxic if inhaled. H331

May cause respiratory irritation. H335

H350 May cause cancer.

EUH071 Corrosive to the respiratory tract.

H272

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Further Information

Provide appropriate information, instructions and training to users

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.

The receiver of our product is singularly responsible for adhering to existing laws and regulations.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)