

according to Regulation (EC) No 1907/2006

## lod-Stammlösung zur Bestimmung des Amylosegehaltes 2 g I2/I + 20 g KI/I in Wasser

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

## 1.1. Product identifier

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# 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,

**number:** 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

STOT RE 2; H373

Full text of hazard statements: see SECTION 16.

## 2.2. Label elements

#### Regulation (EC) No 1272/2008

# Hazard components for labelling

potassium iodide

Signal word: Warning

Pictograms:



### **Hazard statements**

H373 May cause damage to organs (thyroid gland) through prolonged or repeated exposure if

swallowed.



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#### **Precautionary statements**

P260 Do not breathe dust/fume/gas/mist/vapours/spray.
P314 Get medical advice/attention if you feel unwell.

#### 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)				
7681-11-0	potassium iodide				
	231-659-4		01-2119906339-35		
	STOT RE 1; H372				
7553-56-2	iodine				
	231-442-4	053-001-00-3	01-2119485285-30		
	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 1, Aquatic Acute 1; H332 H312 H315 H319 H335 H372 H400				

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. L	Specific Conc. Limits, M-factors and ATE	
7681-11-0	231-659-4	potassium iodide	1 - < 5 %
	oral: LD50 = 31	18 mg/kg	
7553-56-2	231-442-4	iodine	< 1 %
	inhalation: ATE LD50 = > 2000	= 11 mg/l (vapours); inhalation: LC50 = > 4,588 mg/l (dusts or mists); dermal: 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**

No data available

## After inhalation

Provide fresh air.

## After contact with skin

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

### 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.



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#### After ingestion

Rinse mouth immediately and drink plenty of water.

Call a physician immediately.

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

Irritant

Conjunctival oedema (chemosis).

Asthmatic complaints

Fever

Gastrointestinal complaints

Circulatory collapse

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

Give sodium sulfate as laxative (1 tablespoon in 1 glass of water).

## **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 iodide (HI)

#### 5.3. Advice for firefighters

Do not inhale explosion and combustion gases.

Avoid contact with skin, eyes and clothes.

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

#### Additional information

Suppress gases/vapours/mists with water spray jet.

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

#### **SECTION 6: Accidental release measures**

### 6.1. Personal precautions, protective equipment and emergency procedures

#### General advice

Do not breathe vapour/aerosol.

#### For non-emergency personnel

Provide adequate ventilation.

Use personal protection equipment.

Avoid contact with skin, eyes and clothes.

Remove persons to safety.

**Emergency procedures** 

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).



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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.

Do not breathe vapour/aerosol.

When using do not eat, drink, smoke, sniff. Keep container tightly closed.

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. Make available sufficient washing facilities

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.

### 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.

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

## 7.2. Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

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

## Hints on joint storage

No data available

## Further information on storage conditions

Store in a dry place. Protect against: Light

#### 7.3. Specific end use(s)

Laboratory chemicals

## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters



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#### Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
7553-56-2	lodine (Inhalable Fraction and Vapour)	0.01	-		TWA (8 h)	
		0.1	-		STEL (15 min)	

#### **DNEL/DMEL values**

CAS No	Substance					
DNEL type		Exposure route	Effect	Value		
7553-56-2	iodine					
Worker DNEL, long-term		inhalation	systemic	0,07 mg/m³		
Worker DNEL, long-term		dermal		0,01 mg/kg bw/day		

#### **PNEC values**

CAS No	Substance	
Environmenta	Environmental compartment V	
7553-56-2	iodine	
Freshwater 0,01813 mg		0,01813 mg/l
Marine water		0,06001 mg/l
Freshwater sediment 3,9		3,99 mg/kg
Marine sediment 2		20,22 mg/kg
Micro-organisms in sewage treatment plants (STP)		11 mg/l
Soil 5,95 mg/k		5,95 mg/kg

## 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.

Do not breathe vapour/aerosol.

## Individual protection measures, such as personal protective equipment

## Eye/face protection

goggles

Wear eye/face protection.

## **Hand protection**

Protective gloves are recommended Company KCL GmbH, D-36124 Eichenzell, email: vertrieb@kcl.de With specification (test according to EN374):

By long-term hand contact

Trade name/designation: KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 741 Dermatril® L Suitable material: NBR (Nitrile rubber) 0,11 mm

Wearing time with occasional contact (splashes): > 480 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples



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of the recommended glove types. This recommendation applies only to the product stated in the safety data sheet<(>,<)> supplied by us and for the designated use. When dissolving in or mixing with other substances and under conditions deviating from those stated in EN374 please contact the supplier of CE-approved gloves (e.g. KCL GmbH, D-36124 Eichenzell, Internet: www.kcl.de).

#### Skin protection

Wear suitable protective clothing.

Take off immediately all contaminated clothing.

Wash hands before breaks and after work.

#### Respiratory protection

Respiratory protection necessary at: aerosol or mist formation

#### Thermal hazards

No data available

#### **Environmental exposure controls**

Do not allow to enter into surface water or drains.

#### **SECTION 9: Physical and chemical properties**

### 9.1. Information on basic physical and chemical properties

Physical state: Liquid
Colour: dark brown
Odour: characteristic
Odour threshold: No data available

Melting point/freezing point:

Boiling point or initial boiling point and

No data available

No data available

boiling range:

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

Solubility in other solvents

No data available

Dissolution rate: No data available Partition coefficient n-octanol/water: No data available No data available Dispersion stability: Vapour pressure: No data available No data available Vapour pressure: No data available Density: 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
Gas: No data available



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Oxidizing properties

No data available

Other safety characteristics

Evaporation rate:

Solvent separation test:

No data available

Solvent content:

O Solid content:

Sublimation point:

No data available

No data available:

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

Further Information
No data available

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

No data available

#### 10.2. Chemical stability

Protect against: Light

### 10.3. Possibility of hazardous reactions

No data available

## 10.4. Conditions to avoid

Light

#### 10.5. Incompatible materials

No data available

## 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

#### Toxicocinetics, metabolism and distribution

There are no data available on the mixture itself.

### **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



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CAS No	Chemical name					
	Exposure route	Dose		Species	Source	Method
7681-11-0	potassium iodide					
	oral	LD50 mg/kg	3118	Rat	Study report (1980)	OECD Guideline 401
7553-56-2	iodine					
	dermal	LD50 mg/kg	> 2000	Rabbit	Study report (2006)	EPA OPPTS 870.1200
	inhalation vapour	ATE	11 mg/l			
	inhalation (4 h) dust/mist	LC50 mg/l	> 4,588	Rat	Study report (2008)	OECD Guideline 403

## Irritation and corrosivity

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

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

May cause damage to organs through prolonged or repeated exposure. (potassium iodide)

### **Aspiration hazard**

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

### Information on likely routes of exposure

There are no data available on the mixture itself.

## Specific effects in experiment on an animal

There are no data available on the mixture itself.

#### Additional information on tests

There are no data available on the mixture itself.

## **Practical experience**

There are no data available on the mixture itself.

#### 11.2. Information on other hazards

## **Endocrine disrupting properties**

There are no data available on the mixture itself.

### Other information

There are no data available on the mixture itself.

#### **Further information**

Irritant

Conjunctival oedema (chemosis).

Asthmatic complaints

Fever

Gastrointestinal complaints

Circulatory collapse

## **SECTION 12: Ecological information**

### 12.1. Toxicity

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



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CAS No	Chemical name						
	Aquatic toxicity	Dose		[h]   [d]	Species	Source	Method
7681-11-0	potassium iodide						
	Acute fish toxicity	LC50 mg/l	3780	96 h	Oncorhynchus mykiss	Publication (1995)	other: Protocol to d
	Acute crustacea toxicity	EC50 mg/l	1,27	48 h	Daphnia magna	Study report (2012)	OECD Guideline 202
7553-56-2	iodine						
	Acute fish toxicity	LC50 mg/l	1,67	96 h	Oncorhynchus mykiss	Publication (1995)	other: Ontario Ministry of the Environme
	Acute algae toxicity	ErC50 mg/l	0,13	72 h	Desmodesmus subspicatus	Study report (2010)	OECD Guideline 201
	Acute crustacea toxicity	EC50 mg/l	0,59	48 h	Daphnia magna	Publication (1995)	other: Ontario Ministry of the Environme
	Acute bacteria toxicity	EC50	280 mg/l		activated sludge of a predominantly domestic sewag	Study report (2010)	OECD Guideline 209

#### 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.

#### Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
7553-56-2	iodine	2,49

## 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.

# 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.

#### 12.7. Other adverse effects

Discharge into the environment must be avoided.

#### **Further information**

Do not allow to enter into surface water or drains.

# **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

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

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



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#### **SECTION 14: Transport information**

Land transport (ADR/RID)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Inland waterways transport (ADN)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Marine transport (IMDG)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:No dangerous good in sense of this transport regulation.14.2. UN proper shipping name:No dangerous good in sense of this transport regulation.14.3. Transport hazard class(es):No dangerous good in sense of this transport regulation.14.4. Packing group:No dangerous good in sense of this transport regulation.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No dangerous good in sense of this transport regulation.

14.7. Maritime transport in bulk according to IMO instruments

No dangerous good in sense of this transport regulation.

# **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 3, Entry 75

Information according to Directive

Not subject to 2012/18/EU (SEVESO III)

2012/18/EU (SEVESO III):

**National regulatory information** 

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile

work protection guideline' (94/33/EC).

Water hazard class (D): 2 - obviously hazardous to water

## **SECTION 16: Other information**

### Changes

This data sheet contains changes from the previous version in section(s): 12.



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#### Abbreviations and acronyms

Acute Tox: Acute toxicity Skin Irrit: Skin irritation Eye Irrit: Eye irritation

STOT SE: Specific target organ toxicity - single exposure STOT RE: Specific target organ toxicity - repeated exposure

Harmful in contact with skin

Aquatic Acute: Acute aquatic hazard

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

	0 0 1
Classification	Classification procedure
STOT RE 2; H373	Calculation method

#### Relevant H and EUH statements (number and full text)

пэтг	Haimiu in Contact with Skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs (thyroid gland) through prolonged or repeated exposure if swallowed.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.

#### **Further Information**

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.)