

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

Revision date: 02.08.2023

Product code: 27543

Page 1 of 12

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

REACH Registration Number: 01-2119493725-26-XXXX  
CAS No: 123-51-3  
Index No: 603-006-00-7  
EC No: 204-633-5

**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  
Street: Stempelstraße 6  
Place: D-47167 Duisburg  
Telephone: 0203/5194-0  
E-mail: info@analytichem.de  
Contact person: Abteilung Produktsicherheit  
E-mail: produktsicherheit@analytichem.de  
Internet: www.analytichem.de  
Responsible Department: Abteilung Produktsicherheit

Telefax: 0203/5194-290  
Telephone: 0203/5194-107/117

**1.4. Emergency telephone number:**

For Hazardous Materials [or Dangerous Goods] Incidents Spill, Leak, Fire, 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**

No data available

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Regulation (EC) No 1272/2008**

Flam. Liq. 3; H226  
Acute Tox. 4; H332  
Skin Irrit. 2; H315  
Eye Dam. 1; H318  
STOT SE 3; H335

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****Regulation (EC) No 1272/2008****Signal word:** Danger**Pictograms:**

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 2 of 12

**Hazard statements**

H226 Flammable liquid and vapour.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.

**Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 Keep container tightly closed.  
P260 Do not breathe dust/fume/gas/mist/vapours/spray.  
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/doctor.

**Special labelling of certain mixtures**

EUH066 Repeated exposure may cause skin dryness or cracking.

**2.3. Other hazards**

No data available

**SECTION 3: Composition/information on ingredients**

**3.1. Substances**

Sum formula: C<sub>5</sub>H<sub>12</sub>O  
Molecular weight: 88.15 g/mol

**Hazardous components**

CAS No	Chemical name	Quantity
	EC No	Index No
	Classification (Regulation (EC) No 1272/2008)	REACH No
123-51-3	Isoamyl alcohol	100 %
	204-633-5	603-006-00-7
	01-2119493725-26-XXXX	
	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1, STOT SE 3; H226 H332 H315 H318 H335 EUH066	

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	
123-51-3	204-633-5	Isoamyl alcohol	100 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = ca. 2860 mg/kg; oral: LD50 = 3438 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

Revision date: 02.08.2023

Product code: 27543

Page 3 of 12

If breathing is irregular or stopped, administer artificial respiration.  
Call a physician immediately.

#### After contact with skin

Wash immediately with: Water  
Take off immediately all contaminated clothing and wash it before reuse.  
In case of skin irritation, consult a physician.

#### After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water.  
Remove contact lenses, if present and easy to do. Continue rinsing.  
Consult an ophthalmologist.

#### After ingestion

Observe risk of aspiration if vomiting occurs.  
Call a physician immediately.

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

Dizziness, Unconsciousness, Gastrointestinal complaints  
Vomiting, Headache, Irritant  
Cough, Dyspnoea  
Repeated exposure may cause skin dryness or cracking.

#### 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

Foam  
Carbon dioxide (CO<sub>2</sub>)  
Extinguishing powder

#### Unsuitable extinguishing media

no restriction

### 5.2. Special hazards arising from the substance or mixture

Combustible liquids  
Hazardous combustion products  
In case of fire may be liberated:  
Carbon dioxide (CO<sub>2</sub>) Carbon monoxide  
In case of warming:  
Vapours are heavier than air, spread along floors and form explosive mixtures with air.

### 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

Keep away from sources of ignition - No smoking.  
This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators,

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

Revision date: 02.08.2023

Product code: 27543

Page 4 of 12

and pagers which have not been certified as intrinsically safe).  
Take action to prevent static discharges.

#### 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.  
Danger of explosion

#### 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

Use personal protection equipment.  
Do not breathe gas/fumes/vapour/spray.  
Provide adequate ventilation.  
Read label before use.  
Use extractor hood (laboratory).

##### Advice on protection against fire and explosion

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Take precautionary measures against static discharges.

##### Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

##### Further information on handling

Take off immediately all contaminated clothing and wash it before reuse.  
Wash hands before breaks and after work.  
Draw up and observe skin protection programme.

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

##### Requirements for storage rooms and vessels

Keep container tightly closed and dry.

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 5 of 12

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

**Further information on storage conditions**

Store in a well-ventilated place. Keep container tightly closed.  
storage temperature +5°C - +30°C

**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/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
123-51-3	3-Methylbutan-1-ol	5	18		TWA (8 h)	
		10	37		STEL (15 min)	

**DNEL/DMEL values**

CAS No	Substance	Exposure route	Effect	Value
123-51-3	Isoamyl alcohol			
	Worker DNEL, long-term	inhalation	local	73,16 mg/m <sup>3</sup>
	Worker DNEL, acute	inhalation	local	292 mg/m <sup>3</sup>
	Consumer DNEL, long-term	inhalation	local	13 mg/m <sup>3</sup>
	Consumer DNEL, acute	inhalation	local	218 mg/m <sup>3</sup>
	Consumer DNEL, long-term	oral	systemic	12,5 mg/kg bw/day

**PNEC values**

CAS No	Substance	Value
123-51-3	Isoamyl alcohol	
	Freshwater	0,12 mg/l
	Freshwater (intermittent releases)	1,2 mg/l
	Marine water	0,012 mg/l
	Freshwater sediment	0,496 mg/kg
	Marine sediment	0,05 mg/kg
	Micro-organisms in sewage treatment plants (STP)	37 mg/l
	Soil	1,068 mg/kg

**8.2. Exposure controls**

**Appropriate engineering controls**

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

**Individual protection measures, such as personal protective equipment**

**Eye/face protection**

goggles  
Face protection umbrella

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

## Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

Revision date: 02.08.2023

Product code: 27543

Page 6 of 12

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.

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

By long-term hand contact

Trade name/designation: KCL 730 Camatril® Velours

Recommended material: NBR (Nitrile rubber) 0,4 mm

Wearing time with permanent contact: > 480 min

By short-term hand contact

Trade name/designation: KCL 720 Camapren®

Recommended material: CR (polychloroprene, chloroprene rubber) 0,65 mm

Wearing time with occasional contact (splashes): > 240 min

The breakthrough times stated above were determined by KCL in laboratory tests acc. to EN374 with samples 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](http://www.kcl.de)).

**Skin protection**

Wear anti-static footwear and clothing

Wear fire resistant or flame retardant clothing.

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

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

**Respiratory protection**

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

Filtering device with filter or ventilator filtering device of type: A

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

Danger of explosion

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state:	Liquid
Colour:	red
Odour:	characteristic
Odour threshold:	No data available
Melting point/freezing point:	-147 °C
Boiling point or initial boiling point and boiling range:	130,7 °C
Flammability:	No data available
Lower explosion limits:	1,2 vol. %
Upper explosion limits:	8 vol. %
Flash point:	43,5 °C
Auto-ignition temperature:	335 °C
pH-Value (at 20 °C):	7 (25 g/l)
Viscosity / kinematic: (at 20 °C)	5,32 mm <sup>2</sup> /s

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 7 of 12

Water solubility: (at 20 °C)	25 g/L
Solubility in other solvents	
No data available	
Dissolution rate:	No data available
Partition coefficient n-octanol/water:	log Pow: 1,35
Dispersion stability:	No data available
Vapour pressure: (at 20 °C)	3 hPa
Vapour pressure:	No data available
Density:	0,81 g/cm <sup>3</sup>
Bulk density:	No data available
Relative vapour density:	No data available
Particle characteristics:	No data available

**9.2. Other information**

**Information with regard to physical hazard classes**

Explosive properties

In case of warming:

Vapours are heavier than air, spread along floors and form explosive mixtures with air.

Sustaining combustion:

Sustaining combustion

Self-ignition temperature

Solid:

No data available

Gas:

No data available

Oxidizing properties

No data available

**Other safety characteristics**

Evaporation rate:

No data available

Solvent separation test:

No data available

Solvent content:

No data available

Solid content:

No data available

Sublimation point:

No data available

Softening point:

No data available

Pour point:

No data available

Viscosity / dynamic:

4,3 mPa·s

(at 20 °C)

Flow time:

No data available

**Further Information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

In case of warming:

Vapours may form explosive mixtures with air.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

Alkali metals, Alkaline earth metal, Aluminium

Fluorine, Oxygen, Acid, Isocyanates

Aluminium, Oxidising agent, strong,

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 8 of 12

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Rubber articles

**10.6. Hazardous decomposition products**

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**

**Toxicokinetics, metabolism and distribution**

No data available

**Acute toxicity**

Harmful if inhaled.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
123-51-3	Isoamyl alcohol				
	oral	LD50 3438 mg/kg	Rabbit	J. Lab. Clin. Med., 10:985 (1925)	acute oral toxicity study
	dermal	LD50 ca. 2860 mg/kg	Rabbit	Am. Ind. Hyg. Ass. J., 23, 95-107 (1962)	modified acc. to Draize, J.H. et al., J.
	inhalation vapour	ATE 11 mg/l			
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

Causes skin irritation.

Causes serious eye damage.

Repeated exposure may cause skin dryness or cracking.

**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**

May cause respiratory irritation. (Isoamyl alcohol)

**STOT-repeated exposure**

Repeated exposure may cause skin dryness or cracking.

**Aspiration hazard**

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

Observe risk of aspiration if vomiting occurs.

**Information on likely routes of exposure**

No data available

**Specific effects in experiment on an animal**

No data available

**Additional information on tests**

No data available

**Practical experience**

No data available



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 9 of 12

**11.2. Information on other hazards**

**Endocrine disrupting properties**

No data available

**Other information**

Liver and kidney damage

**Further information**

Dizziness, Unconsciousness, Gastrointestinal complaints

Vomiting, Headache, Irritant

Cough, Dyspnoea

Repeated exposure may cause skin dryness or cracking.

**SECTION 12: Ecological information**

**12.1. Toxicity**

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

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
123-51-3	Isoamyl alcohol					
	Acute fish toxicity	LC50 530 mg/l	96 h	Danio rerio	Z Wasser Abwasser Forsch 15 (2), 49-52 (	other: OECD Draft 1980 and ISO TC 147/SC
	Acute algae toxicity	ErC50 > 320 mg/l	72 h	Pseudokirchneriella subcapitata	Study report (2011)	OECD Guideline 201
	Acute crustacea toxicity	EC50 341,21 mg/l	48 h	Daphnia magna	Study report (1990)	EU Method C.2

**12.2. Persistence and degradability**

84 %; 27 d

OECD-301C

Readily biodegradable (according to OECD criteria).

**12.3. Bioaccumulative potential**

No indication of bioaccumulation potential.

**Partition coefficient n-octanol/water**

CAS No	Chemical name	Log Pow
123-51-3	Isoamyl alcohol	1,35

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This substance does not have endocrine disrupting properties with respect to non-target organisms.

**12.7. Other adverse effects**

Do not allow to enter into surface water or drains.

**Further information**

Avoid release to the environment.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal recommendations**

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

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 10 of 12

Send to a physico-chemical treatment facility under observation of official regulations.  
Do not empty into 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.

**SECTION 14: Transport information**

**Land transport (ADR/RID)**

<b>14.1. UN number or ID number:</b>	UN 1105
<b>14.2. UN proper shipping name:</b>	PENTANOLS
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3
Classification code:	F1
Limited quantity:	5 L
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

**Inland waterways transport (ADN)**

<b>14.1. UN number or ID number:</b>	UN 1105
<b>14.2. UN proper shipping name:</b>	PENTANOLS
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3
Classification code:	F1
Limited quantity:	5 L
Excepted quantity:	E1

**Marine transport (IMDG)**

<b>14.1. UN number or ID number:</b>	UN 1105
<b>14.2. UN proper shipping name:</b>	PENTANOLS
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3
Special Provisions:	223
Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-D

**Air transport (ICAO-TI/IATA-DGR)**

<b>14.1. UN number or ID number:</b>	UN 1105
<b>14.2. UN proper shipping name:</b>	PENTANOLS
<b>14.3. Transport hazard class(es):</b>	3
<b>14.4. Packing group:</b>	III
Hazard label:	3
Special Provisions:	A3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.

Revision date: 02.08.2023

Product code: 27543

Page 11 of 12

#### 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 40

Information according to 2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

##### Additional 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).

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

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

### SECTION 16: Other information

#### Changes

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

#### Abbreviations and acronyms

Flam. Liq: Flammable liquid

Acute Tox: Acute toxicity

Skin Irrit: Skin irritation

Eye Dam: Eye damage

STOT SE: Specific target organ toxicity - single exposure

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

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H318 Causes serious eye damage.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

EUH066 Repeated exposure may cause skin dryness or cracking.

#### 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.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### **Isoamyl alcohol for analysis, ACS, Reag. Ph. Eur.**

Revision date: 02.08.2023

Product code: 27543

Page 12 of 12