

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: **2624**  
Version: **1.0 en**

date of compilation: 2016-11-10

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

#### 1.1 Product identifier

Identification of the substance	<b>Tashiro's indicator solution</b>
Article number	2624
Registration number (REACH)	not relevant (mixture)

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

**Identified uses:** laboratory chemical

#### 1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG  
Schoemperlenstr. 3-5  
D-76185 Karlsruhe  
Germany

**Telephone:** +49 (0) 721 - 56 06 0

**Telefax:** +49 (0) 721 - 56 06 149

**e-mail:** [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

**Website:** [www.carlroth.de](http://www.carlroth.de)

Competent person responsible for the safety data sheet : Department Health, Safety and Environment

**e-mail (competent person)** : [sicherheit@carlroth.de](mailto:sicherheit@carlroth.de)

#### 1.4 Emergency telephone number

Emergency information service **Poison Centre Munich: +49/(0)89 19240**

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

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

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
2.6	flammable liquid	(Flam. Liq. 3)	H226

#### Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

#### 2.2 Label elements

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

Signal word

**Warning**

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### Pictograms



### Hazard statements

H226 Flammable liquid and vapour.

### Precautionary statements

#### **Precautionary statements - prevention**

P210 Keep away from heat, hot surfaces, sparks, open flames. No smoking.  
P280 Wear protective gloves/eye protection.

#### **Precautionary statements - response**

P303+P361+P353 IF ON SKIN (or hair): take off immediately all contaminated clothing. Rinse skin with water/shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### **Labelling of packages where the contents do not exceed 125 ml**

Signal word: **Warning**

Symbol(s)



### 2.3 Other hazards



There is no additional information.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

#### **Description of the mixture**

Composition/information on ingredients.

Name of substance	Identifier	wt%	Classification acc. to 1272/2008/EC	Pictograms
ethyl alcohol	CAS No 64-17-5  EC No 200-578-6  Index No 603-002-00-5  REACH Reg. No 01-2119457610-43-XXXX	25 - 50	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319	 

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### Remarks

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air.

#### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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

Breathing difficulties, Abdominal pain, Vomiting, Narcosis, Vertigo, Nausea, Vomiting

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

none

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing media

Co-ordinate fire-fighting measures to the fire surroundings  
water spray, foam, alcohol resistant foam, dry extinguishing powder, carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media

water jet

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

Combustible. Vapours can form explosive mixtures with air.

#### Hazardous combustion products

In case of fire may be liberated: May produce toxic fumes of carbon monoxide if burning.

### 5.3 Advice for firefighters

Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Solvent vapours are heavier than air and may spread along floors. Beware of reignition.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### SECTION 6: Accidental release measures

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

##### For non-emergency personnel

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Explosive properties.

#### 6.3 Methods and material for containment and cleaning up

##### Advices on how to contain a spill

Covering of drains.

##### Advices on how to clean up a spill

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

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

##### Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Provide adequate ventilation as well as local exhaustion at critical locations. Keep container tightly closed.

##### • Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge.

##### Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs. When using do not smoke.

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

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

##### Incompatible substances or mixtures

Observe hints for combined storage.

##### Consideration of other advice

Ground/bond container and receiving equipment.

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### • Ventilation requirements

Use local and general ventilation.

### • Specific designs for storage rooms or vessels

Recommended storage temperature: 15 - 25 °C.

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Notation	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
GB	ethanol	64-17-5		WEL	1.000	1.920			EH40/2005

#### Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

#### Relevant DNELs/DMELs/PNECs and other threshold levels

##### • relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
ethyl alcohol	64-17-5	DNEL	1.900 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	acute - systemic effects
ethyl alcohol	64-17-5	DNEL	343 mg/kg	human, dermal	worker (industry)	chronic - systemic effects
ethyl alcohol	64-17-5	DNEL	950 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - systemic effects

##### • relevant PNECs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Environmental compartment	Exposure time
ethyl alcohol	64-17-5	PNEC	0,79 mg/cm <sup>3</sup>	marine water	intermittent release
ethyl alcohol	64-17-5	PNEC	2,75 mg/cm <sup>3</sup>	air	intermittent release
ethyl alcohol	64-17-5	PNEC	3,6 mg/cm <sup>3</sup>	freshwater sediment	intermittent release
ethyl alcohol	64-17-5	PNEC	0,96 mg/cm <sup>3</sup>	freshwater	intermittent release
ethyl alcohol	64-17-5	PNEC	580 mg/cm <sup>3</sup>	sewage treatment plant (STP)	intermittent release
ethyl alcohol	64-17-5	PNEC	0,63 mg/cm <sup>3</sup>	soil	intermittent release

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### 8.2 Exposure controls

#### Individual protection measures (personal protective equipment)



#### Eye/face protection

Use safety goggle with side protection.

#### Skin protection

##### • hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. 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.

##### • type of material

Butyl caoutchouc (butyl rubber)

##### • material thickness

0,7mm

##### • breakthrough times of the glove material

>480 minutes (permeation: level 6)

##### • other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

#### Respiratory protection

Respiratory protection necessary at: Aerosol or mist formation.

#### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state	liquid (fluid)
Colour	green
Odour	like: alcohol
Odour threshold	No data available

#### Other physical and chemical parameters

pH (value)	This information is not available.
Melting point/freezing point	not determined
Initial boiling point and boiling range	This information is not available.
Flash point	27 °C
Evaporation rate	no data available
Flammability (solid, gas)	not relevant (fluid)

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: **2624**

### Explosive limits

• lower explosion limit (LEL)	3,5 vol%
• upper explosion limit (UEL)	15 vol%
Explosion limits of dust clouds	not relevant
Vapour pressure	This information is not available.
Density	0,934 g/cm <sup>3</sup> at 20 °C
Vapour density	This information is not available.
Bulk density	Not applicable
Relative density	Information on this property is not available.

### Solubility(ies)

Water solubility miscible in any proportion

### Partition coefficient

n-octanol/water (log KOW) This information is not available.

Auto-ignition temperature 425 °C

Decomposition temperature no data available

Viscosity not determined

Explosive properties Shall not be classified as explosive

Oxidising properties none

## 9.2 Other information

Temperature class (EU, acc. to ATEX) T2 (Maximum permissible surface temperature on the equipment: 300°C)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

risk of ignition. In case of warming: Vapours can form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

Violent reaction with: Alkali metals, Alkaline earth metal, Acetic anhydride, Nitrate, Perchlorates, Peroxides, Phosphorus oxides (e.g. P<sub>2</sub>O<sub>5</sub>), Nitric acid, Strong oxidiser,  
=> Explosive properties

### 10.4 Conditions to avoid

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

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### 10.5 Incompatible materials

plastic and rubber

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Shall not be classified as acutely toxic.

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant

- **Specific target organ toxicity - single exposure**

Shall not be classified as a specific target organ toxicant (single exposure).

- **Specific target organ toxicity - repeated exposure**

Shall not be classified as a specific target organ toxicant (repeated exposure).

#### Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

#### Symptoms related to the physical, chemical and toxicological characteristics

- **If swallowed**

vomiting, abdominal pain, nausea, Causes damage to liver through prolonged or repeated exposure if swallowed

- **If in eyes**

data are not available

- **If inhaled**

narcosis, vertigo, breathing difficulties, Inebriation

- **If on skin**

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation)

#### Other information

None



# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

### SECTION 12: Ecological information

#### 12.1 Toxicity

acc. to 1272/2008/EC: Shall not be classified as hazardous to the aquatic environment.

##### Aquatic toxicity (acute)

##### Aquatic toxicity (acute) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
ethyl alcohol	64-17-5	EC50	>9.000 mg/l	daphnia magna	48 h
ethyl alcohol	64-17-5	LC50	8.140 mg/l	orfe (Leuciscus idus)	96 h

#### 12.2 Process of degradability

Data are not available.

##### Degradability of components of the mixture

Name of substance	CAS No	Process	Degradation rate	Time
ethyl alcohol	64-17-5	biotic/abiotic	94 %	d

#### 12.3 Bioaccumulative potential

Data are not available.

##### Bioaccumulative potential of components of the mixture

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
ethyl alcohol	64-17-5		-0,31	

#### 12.4 Mobility in soil

Data are not available.

#### 12.5 Results of PBT and vPvB assessment

Data are not available.

#### 12.6 Other adverse effects

Data are not available.

## Tashiro's indicator solution in ethanol

article number: 2624

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

##### Sewage disposal-relevant information

Do not empty into drains.

##### Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used.

#### 13.2 Relevant provisions relating to waste

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

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### SECTION 14: Transport information

<b>14.1</b>	UN number	<b>1170</b>
<b>14.2</b>	UN proper shipping name	<b>ETHANOL SOLUTION</b>
	Hazardous ingredients	Ethyl alcohol
<b>14.3</b>	Transport hazard class(es)	
	Class	3 (flammable liquids)
<b>14.4</b>	Packing group	III (substance presenting low danger)
<b>14.5</b>	Environmental hazards	none (non-environmentally hazardous acc. to the dangerous goods regulations)
<b>14.6</b>	<b>Special precautions for user</b>	
	Provisions for dangerous goods (ADR) should be complied within the premises.	
<b>14.7</b>	<b>Transport in bulk according to Annex II of MARPOL and the IBC Code</b>	
	The cargo is not intended to be carried in bulk.	
<b>14.8</b>	<b>Information for each of the UN Model Regulations</b>	
	• <b>Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN)</b>	
	UN number	1170
	Proper shipping name	ETHANOL SOLUTION
	Particulars in the transport document	UN1170, ETHANOL SOLUTION, 3, III, (D/E)
	Class	3
	Classification code	F1
	Packing group	III
	Danger label(s)	3

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624



Special provisions (SP)	144, 601
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
Transport category (TC)	3
Tunnel restriction code (TRC)	D/E
Hazard identification No	30
<b>Emergency Action Code</b>	2YE
<b>• International Maritime Dangerous Goods Code (IMDG)</b>	
UN number	1170
Proper shipping name	ETHANOL SOLUTION
Particulars in the shipper's declaration	UN1170, ETHANOL SOLUTION, 3, III, 27°C c.c.
Class	3
Packing group	III
Danger label(s)	3



Special provisions (SP)	144, 223
Excepted quantities (EQ)	E1
Limited quantities (LQ)	5 L
EmS	F-E, S-D
Stowage category	A

## SECTION 15: Regulatory information

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

#### Relevant provisions of the European Union (EU)

- **Regulation 649/2012/EU concerning the export and import of hazardous chemicals (PIC)**

None of the ingredients are listed.

- **Regulation 1005/2009/EC on substances that deplete the ozone layer (ODS)**

None of the ingredients are listed.



# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: 2624

Abbr.	Descriptions of used abbreviations
COD	chemical oxygen demand
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits ( <a href="http://www.nationalarchives.gov.uk/doc/open-government-licence/">http://www.nationalarchives.gov.uk/doc/open-government-licence/</a> )
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	seriously damaging to the eye
Eye Irrit.	irritant to the eye
Flam. Liq.	flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IMDG	International Maritime Dangerous Goods Code
index No	the Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
log KOW	n-octanol/water
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	short-term exposure limit
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative
WEL	workplace exposure limit

### Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

### List of relevant phrases (code and full text as stated in chapter 2 and 3)

# safety data sheet

according to Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU



## Tashiro's indicator solution in ethanol

article number: **2624**

Code	Text
H225	highly flammable liquid and vapour
H226	flammable liquid and vapour
H319	causes serious eye irritation

### Disclaimer

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.