

Merlin Diagnostika GmbH

53332 Bornheim-Hersel

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Version 05. Supersedes version: 04

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

Indol Reagenz (E2-301-001)

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

Test reagent

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet
Company

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Technical information
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Safety Data Sheet
sdb@chemiebuero.de
1.4 Emergency telephone number
Advisory body

+49 (0)89-19240 (24h) (english)

SECTION 2: Hazards identification
2.1 Classification of the substance or mixture

Met. Corr. 1: H290 May be corrosive to metals.

2.2 Label elements
Hazard pictograms

Signal word

WARNING

Hazard statements

H290 May be corrosive to metals.

2.3 Other hazards
Physico-chemical hazards

Reactions with alkalis (lyes).
 Reactions with metals, with evolution of hydrogen.

Human health dangers

Frequent persistent contact with the skin can cause skin irritation.

Environmental hazards

Does not contain any PBT or vPvB substances.

Other hazards

Further hazards were not determined with the current level of knowledge.

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SECTION 3: Composition / Information on ingredients

Product-type:

The product is a mixture.

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid |
| | CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX |
| | GHS/CLP: Skin Corr. 1B: H314 - STOT SE 3: H335 - Met. Corr. 1: H290 |

Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
For full text of H-statements: see SECTION 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

Take off contaminated clothing and wash before reuse.

Inhalation

Ensure supply of fresh air.
In the event of symptoms seek medical treatment.

Skin contact

In case of contact with skin wash off immediately with soap and water.
Consult a doctor if skin irritation persists.

Eye contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion

Get medical advice.
Rinse out mouth and give plenty of water to drink.

4.2 Most important symptoms and effects, both acute and delayed

Headache
Irritant effects

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Product itself is non-combustible. Fire extinguishing method of surrounding areas must be considered.

Extinguishing media that must not be used

Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Hydrogen chloride (HCl).
Nitrogen oxides (NOx).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment (protective gloves).



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6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Take up with absorbent material (e.g. acid binder).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

The normal safety precautions for handling chemicals must be observed.

Use barrier skin cream.
Wash hands before breaks and after work.
Do not eat, drink, smoke or take drugs at work.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Provide acid-resistant floor.
Prevent penetration into the ground.

Do not store together with metals.
Do not store together with oxidizing agents.
Do not store together with food and animal food/diet.

Keep container in a well-ventilated place.
Keep container tightly closed.
Protect from heat/overheating.

7.3 Specific end use(s)

See product use, SECTION 1.2

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SECTION 8: Exposure controls / personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (GB)

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid |
| | CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX |
| | Long-term exposure: 1 ppm, 2 mg/m ³ , gas and aerosol mists |
| | Short-term exposure (15-minute): 5 ppm, 8 mg/m ³ |

Ingredients with occupational exposure limits to be monitored (EU)

| Range [%] | Substance / EC LIMIT VALUES |
|-----------|--|
| 1 - <5 | Hydrochloric acid |
| | CAS: 7647-01-0, EINECS/ELINCS: 231-595-7, EU-INDEX: 017-002-01-X, Reg-No.: 01-2119484862-27-XXXX |
| | Eight hours: 5 ppm, 8 mg/m ³ |
| | Short-term (15-minute): 10 ppm, 15 mg/m ³ |

DNEL

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid, CAS: 7647-01-0 |
| | Industrial, inhalative, Long-term - local effects: 8 mg/m ³ . |
| | Industrial, inhalative, Acute - local effects: 15 mg/m ³ . |

PNEC

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid, CAS: 7647-01-0 |
| | sewage treatment plants (STP), 0,036 mg/l. |
| | seawater, 0,036 mg/l. |
| | freshwater, 0,036 mg/l. |

8.2 Exposure controls

| | |
|--|--|
| Additional advice on system design | Ensure adequate ventilation on workstation. |
| Eye protection | Safety glasses. (EN 166:2001) |
| Hand protection | 0,4mm Butyl rubber, >120 min (EN 374). The details concerned are recommendations. Please contact the glove supplier for further information. |
| Skin protection | light protective clothing |
| Other | Avoid contact with eyes and skin. Do not inhale vapours. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier. |
| Respiratory protection | Breathing apparatus in the event of high concentrations. Short term: filter apparatus, combination filter E-P2. |
| Thermal hazards | none |
| Delimitation and monitoring of the environmental exposition | Comply with applicable environmental regulations limiting discharge to air, water and soil. |

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

| | |
|---|------------------------|
| Form | liquid |
| Color | yellowish |
| Odor | pungent |
| Odour threshold | not determined |
| pH-value | acidic |
| pH-value [1%] | not determined |
| Boiling point [°C] | not determined |
| Flash point [°C] | not applicable |
| Flammability (solid, gas) [°C] | not applicable |
| Lower explosion limit | not applicable |
| Upper explosion limit | not applicable |
| Oxidizing properties | no |
| Vapour pressure/gas pressure [kPa] | not determined |
| Density [g/ml] | 1,03 (20 °C / 68,0 °F) |
| Bulk density [kg/m ³] | not applicable |
| Solubility in water | miscible |
| Partition coefficient [n-octanol/water] | not determined |
| Viscosity | not applicable |
| Relative vapour density determined in air | not determined |
| Evaporation speed | not determined |
| Melting point [°C] | not determined |
| Autoignition temperature [°C] | not applicable |
| Decomposition temperature [°C] | not determined |

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

Reactions with alkalis (lyes).
Reactions with metals, with evolution of hydrogen.

10.4 Conditions to avoid

See SECTION 7

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No hazardous decomposition products known.

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SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

| |
|------------------------------------|
| Product |
| ATE-mix, inhalative, > 20 mg/l 4h. |
| ATE-mix, dermal, > 2000 mg/kg. |
| ATE-mix, oral, > 2000 mg/kg. |

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid, CAS: 7647-01-0 |
| | LD50, oral, Rabbit: 900 mg/kg. |
| | LD50, dermal, Rabbit: > 5010 mg/kg. |
| | LC50, inhalative, Rabbit: 4,2 - 4,7 mg/l 1h. |

Serious eye damage/irritation Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Skin corrosion/irritation Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Respiratory or skin sensitisation Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Specific target organ toxicity — single exposure Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Specific target organ toxicity — repeated exposure Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Mutagenicity Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Reproduction toxicity Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Carcinogenicity Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

Aspiration hazard Does not contain a relevant substance that meets the classification criteria. Based on the available information, the classification criteria are not fulfilled. Toxicological data of complete product are not available.

General remarks
none

SECTION 12: Ecological information

12.1 Toxicity

| Range [%] | Substance |
|-----------|--|
| 1 - <5 | Hydrochloric acid, CAS: 7647-01-0 |
| | LC50, (96h), Lepomis macrochirus: 24,6 mg/l. |

12.2 Persistence and degradability

Behaviour in environment compartments not determined

Behaviour in sewage plant The product is an acid. Neutralization is normally necessary before a waste water is discharged into sewage treatment plants.

Biological degradability not determined

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12.3 Bioaccumulative potential

Accumulation in organisms is not expected.

12.4 Mobility in soil

not determined

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

None known.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product

Coordinate disposal with the authorities if necessary.

Waste no. (recommended)

060199

Contaminated packaging

Untaminated packaging may be taken for recycling.

Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended)

150102
150107

SECTION 14: Transport information

14.1 UN number

See SECTION 14.2 in accordance with UN shipping name


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14.2 UN proper shipping name

Transport by land according to ADR/RID UN 1789 Hydrochloric acid, solution 8 III
- Classification Code C1
- Label 
- ADR LQ 5 I
- ADR 1.1.3.6 (8.6) Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN) UN 1789 Hydrochloric acid, solution 8 III
- Classification Code C1
- Label 

Marine transport in accordance with IMDG UN 1789 Hydrochloric acid, solution 8 III
- EMS F-A, S-B
- Label 
- IMDG LQ 5 I

Air transport in accordance with IATA UN 1789 Hydrochloric acid, solution 8 III
- Label 

14.3 Transport hazard class(es)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

not determined

SECTION 15: Regulatory information

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

EEC-REGULATIONS 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people no

- VOC (1999/13/CE) 0%

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15.2 Chemical safety assessment

not applicable

SECTION 16: Other information**16.1 Hazard statements (SECTION 3)**

H290 May be corrosive to metals.
 H335 May cause respiratory irritation.
 H314 Causes severe skin burns and eye damage.

16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
 RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
 ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
 CAS = Chemical Abstracts Service
 CLP = Classification, Labelling and Packaging
 DMEL = Derived Minimum Effect Level
 DNEL = Derived No Effect Level
 EC50 = Median effective concentration
 ECB = European Chemicals Bureau
 EEC = European Economic Community
 EINECS = European Inventory of Existing Commercial Chemical Substances
 ELINCS = European List of Notified Chemical Substances
 GHS = Globally Harmonized System of Classification and Labelling of Chemicals
 IATA = International Air Transport Association
 IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
 IC50 = Inhibition concentration, 50%
 IMDG = International Maritime Code for Dangerous Goods
 IUCLID = International Uniform Chemical Information Database
 LC50 = Lethal concentration, 50%
 LD50 = Median lethal dose
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 TLV@TWA = Threshold limit value – time-weighted average
 TLV@STEL = Threshold limit value – short-time exposure limit
 VOC = Volatile Organic Compounds
 vPvB = very Persistent and very Bioaccumulative

16.3 Other information**Classification procedure**

Met. Corr. 1: H290 May be corrosive to metals. (On basis of test data)

Modified position

SECTION 7 been added: The normal safety precautions for handling chemicals must be observed.
 SECTION 7 deleted: No special measures necessary if used correctly.
 SECTION 8 been added: Comply with applicable environmental regulations limiting discharge to air, water and soil.
 SECTION 8 deleted: See SECTION 6+7.
 SECTION 12 deleted: The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.
 SECTION 12 been added: None known.
 SECTION 12 deleted: No classification on the basis of the calculation procedure of the preparation directive.
 SECTION 12 been added: Accumulation in organisms is not expected.
 SECTION 12 deleted: not determined



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