


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

- **Product identifier**
- **Trade name:** ARISTOLOCHIC ACID SODIUM SALT (I and II) for biochemistry
- **Article number:** 7268
- **CAS Number:**
10190-99-5
- **EC number:**
233-463-4
- **Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation** Laboratory chemical
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Carl Roth GmbH + Co. KG
Schoemperlenstraße 3-5
76185 Karlsruhe
Germany
Telefon: +49/(0)721 5606-0 Telefax: +49/(0)721 5606-149 E-Mail: sicherheit@carlroth.de
- **Further information obtainable from:** Department Health, Safety and Environment
- **Emergency telephone number:** Poison Centre Munich Telefon +49/(0)89 19240


2 Hazards identification

- **Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008**
Acute Tox. 3 H301 Toxic if swallowed.
Acute Tox. 3 H311 Toxic in contact with skin.
Acute Tox. 3 H331 Toxic if inhaled.
Muta. 2 H341 Suspected of causing genetic defects.
Carc. 2 H351 Suspected of causing cancer.

 - **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
T; Toxic
R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.
Xn; Harmful
R40-68: Limited evidence of a carcinogenic effect. Possible risk of irreversible effects.

 - **Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**
- 

GHS06



GHS08
- **Signal word** Danger
 - **Hazard statements**
H301 Toxic if swallowed.
H311 Toxic in contact with skin.
H331 Toxic if inhaled.
H341 Suspected of causing genetic defects.
H351 Suspected of causing cancer.
 - **Precautionary statements**
P281 Use personal protective equipment as required.

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- P201 Obtain special instructions before use.
- P302+P352 IF ON SKIN: Wash with plenty of soap and water.
- P309 IF exposed or if you feel unwell:
- P310 Immediately call a POISON CENTER or doctor/physician.
- P405 Store locked up.

- **Other hazards**

- All chemicals are potentially dangerous. They should only be handled by specially trained personnel.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Substances**
- **CAS No. Description**
10190-99-5 Aristolochic acid sodium salt (I and II)
- **Identification number(s)**
- **EC number:** 233-463-4

4 First aid measures

- **Description of first aid measures**
- **General information:**
First Aider: Pay attention to self-protection!
Immediately remove any clothing soiled by the product.
- **After inhalation:** Remove to fresh air. If breathing is difficult, give oxygen. Seek medical advice immediately.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If there is any trouble seek medical help.
- **After eye contact:**
Rinse opened eye for 10 minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Try not to vomit. Swallow activated carbon and sodium sulphate.
Call for a doctor immediately.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** CO₂, powder, foam or water spray.
- **Special hazards arising from the substance or mixture**
In the event of fire development of hazardous combustion gases or vapours possible.
- **Advice for firefighters**
- **Protective equipment:**
Wear self-contained respiratory protective device.
Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
Use respiratory protective device against the effects of dust.

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- Avoid contact with the eyes and skin.
- **Environmental precautions:** Do not allow to enter sewers/ground water or penetrate the soil.
- **Methods and material for containment and cleaning up:**
Pick up mechanically.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Work only in fume cupboard.
Handle and open container with care.
Keep containers, equipment and working place clean.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from foodstuffs.
- **Further information about storage conditions:**
Store in cool, dry conditions in well sealed receptacles.
Protect from exposure to the light.
Storage temperature: +4 °C
Store under lock and key and with access restricted to technical experts or their assistants only.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:** No further data; see item 7.
- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists valid during the making were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Do not eat, drink or smoke while working.
Immediately remove all soiled and contaminated clothing.
Do not breathe dust.
Avoid contact with the eyes and skin.
Clean skin thoroughly immediately after handling the product.
- **Respiratory protection:** Required when dusts are generated: filter P3.
- **Protection of hands:**
Check protective gloves prior to each use for their proper condition.



Protective gloves

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- **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

- **Penetration time of glove material**

Value for the permeation: Level ≥ 6

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- **Eye protection:**



Tightly sealed goggles

- **Body protection:** Protective work clothing

9 Physical and chemical properties

- **Information on basic physical and chemical properties**

- **General Information**

- **Appearance:**

Form: Crystalline powder

Colour: orange-yellow

- **Odour:** Odourless

- **Odour threshold:** Not determined.

- **pH-value:** Not applicable.

- **Change in condition**

Melting point/Melting range: $\sim 250^{\circ}\text{C}$

- **Flash point:** Not applicable.

- **Flammability (solid, gaseous):** Product is not flammable.

- **Danger of explosion:** Product does not present an explosion hazard.

- **Vapour pressure:** Not applicable.

- **Density:** Not determined.

- **Relative density** Not determined.

- **Vapour density** Not applicable.

- **Solubility in / Miscibility with**

water: Not miscible or difficult to mix.

- **Segregation coefficient (n-octanol/water):** Not determined.

- **Viscosity:**

Dynamic: Not applicable.

- **Other information** No further relevant information available.

10 Stability and reactivity

- **Reactivity**

- **Chemical stability**

- **Thermal decomposition / conditions to be avoided:**

No decomposition if used and stored according to specifications.

- **Possibility of hazardous reactions** No information available.

- **Conditions to avoid** No further relevant information available.

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- **Incompatible materials:** Strong oxidizing agents.
- **Hazardous decomposition products:** No information available.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values relevant for classification:** Quantitative data on the toxicity of this product are not available.
- **Primary irritant effect:**
- **on the skin:** Slight irritations.
- **on the eye:** Slight irritations
- **after inhalation:**
Slight irritations.
Irritations in the respiratory tract, coughing, dyspnoea.
- **Sensitization:** No sensitizing effects known.
- **Subacute to chronic toxicity:**
Animal experiments have shown the substance to be carcinogenic and mutagenic.
Limited evidence of a carcinogenic effect.
- **Additional toxicological information:**
After absorption nausea, vomiting, spasms, agitation, cardiovascular failure, collapse.
Death through respiratory paralysis.
Possible effects to kidneys and stomach.
- **Further information:**
To the best of our knowledge, the toxicological properties have not been thoroughly investigated. Further hazardous properties cannot be excluded.
This substance should be handled with particular care.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** Quantitative data on the ecological effect of this product are not available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
The disposal is regionally differently regulated, therefore the kind of disposal is to be inquired at the responsible authorities.
This material and its container must be disposed of as hazardous waste.
- **Uncleaned packaging:**
- **Recommendation:** Disposal according to official regulations.

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14 Transport information

<ul style="list-style-type: none"> · UN-Number · ADR, IMDG, IATA 	UN1544
<ul style="list-style-type: none"> · UN proper shipping name · ADR · IMDG, IATA 	1544 ALKALOID SALTS, SOLID, N.O.S. (Aristolochic acid sodium salt (I and II)) ALKALOID SALTS, SOLID, N.O.S. (Aristolochic acid sodium salt (I and II))
<ul style="list-style-type: none"> · Transport hazard class(es) · ADR 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances. 6.1
<ul style="list-style-type: none"> · IMDG, IATA 	<div style="text-align: center;">  </div>
<ul style="list-style-type: none"> · Class · Label 	6.1 Toxic substances. 6.1
<ul style="list-style-type: none"> · Packing group · ADR, IMDG, IATA 	II
<ul style="list-style-type: none"> · Environmental hazards: · Marine pollutant: 	No
<ul style="list-style-type: none"> · Special precautions for user · Danger code (Kemler): · EMS Number: 	Warning: Toxic substances. 60 F-A,S-A
<ul style="list-style-type: none"> · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code 	Not applicable.
<ul style="list-style-type: none"> · Transport/Additional information: 	<hr style="border-top: 1px dashed black;"/>
<ul style="list-style-type: none"> · ADR · Limited quantities (LQ) · Tunnel restriction code 	500 g D/E
<ul style="list-style-type: none"> · UN "Model Regulation": 	UN1544, ALKALOID SALTS, SOLID, N.O.S. (Aristolochic acid sodium salt (I and II)), 6.1, II

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15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **National regulations:**
- **Information about limitation of use:**
Employment restrictions concerning juveniles must be observed.
Employment restrictions concerning pregnant and lactating women must be observed.
- **Waterhazard class:** Not subject to classification.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** Department: Health, Safety and Environment
- **Contact:** Frau Weckemann
- **Abbreviations and acronyms:**
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
- *** Data compared to the previous version altered.**