

# Safety data sheet Safety data sheet

acc. to Safe Work Australia - Code of Practice



**Arsenazo III ≥85 %, p.a.**

article number: **KK22**  
Version: **GHS 3.0 en**  
Replaces version of: 2022-02-16  
Version: (GHS 2)

date of compilation: 2016-11-16  
Revision: 2024-03-02

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

### 1.1 Product identifier

Identification of the substance **Arsenazo III ≥85 %, p.a.**  
Article number **KK22**  
CAS number **1668-00-4**

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

Relevant identified uses: **Laboratory chemical  
Laboratory and analytical use**  
Uses advised against: **Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs.**

### 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

| Name   | Street          | Postal code/city   | Telephone | Website |
|--|-----------------|--------------------|-----------|---------|
| NSW Poisons Information Centre<br>Childrens Hospital | Hawkesbury Road | 2145 Westmead, NSW | 131126    |         |

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification acc. to GHS

| Section | Hazard class            | Category | Hazard class and category | Hazard statement |
|---------|-------------------------|----------|---------------------------|------------------|
| 3.10    | Acute toxicity (oral)   | 3        | Acute Tox. 3              | H301             |
| 3.11    | Acute toxicity (inhal.) | 3        | Acute Tox. 3              | H331             |

For full text of abbreviations: see SECTION 16

### 2.2 Label elements

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## Labelling

### Signal word

**Danger**

### Pictograms

GHS06



### Hazard statements

H301+H331 Toxic if swallowed or if inhaled

### Precautionary statements

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

P261 Avoid breathing dust/fume/gas/mist/vapours/spray

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

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P311 Call a POISON CENTER or doctor/physician  
P330 Rinse mouth

#### **Precautionary statements - storage**

P403+P233 Store in a well-ventilated place. Keep container tightly closed

#### **Precautionary statements - disposal**

P501 Dispose of contents/container to industrial combustion plant

## 2.3 Other hazards

### **Results of PBT and vPvB assessment**

According to the results of its assessment, this substance is not a PBT or a vPvB.

### **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

|                   |                                |
|-------------------|--------------------------------|
| Name of substance | Arsenazo III                   |
| Molecular formula | $C_{22}H_{18}As_2N_4O_{14}S_2$ |
| Molar mass        | 774.4 g/mol                    |
| CAS No            | 1668-00-4                      |

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## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Self-protection of the first aider.

#### Following inhalation

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

#### 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 immediately and drink plenty of water. Call a physician immediately.

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

Symptoms and effects are not known to date.

### 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 firefighting measures to the fire surroundings!  
water, foam, dry extinguishing powder, ABC-powder

#### Unsuitable extinguishing media

water jet

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

Combustible.

#### Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO<sub>x</sub>), Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Sulphur oxides (SO<sub>x</sub>)

### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

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## SECTION 6: Accidental release measures

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



#### For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe dust.

### 6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

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

#### Advice on how to contain a spill

Covering of drains. Take up mechanically.

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

Take up mechanically. Control of dust.

#### Other information relating to spills and releases

Place in appropriate containers for disposal.

### 6.4 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

Use extractor hood (laboratory). Avoid dust formation. Clear contaminated areas thoroughly.

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

Removal of dust deposits.

#### Advice on general occupational hygiene

When using do not eat or drink. Thorough skin-cleansing after handling the product.

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

Store in a dry place.

#### Incompatible substances or mixtures

Observe hints for combined storage.

#### Consideration of other advice:

Store locked up.

#### Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

#### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

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## 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 | Identifier | TWA [mg/m <sup>3</sup> ] | STEL [mg/m <sup>3</sup> ] | Ceiling-C [mg/m <sup>3</sup> ] | Notation | Source |
|---------|----------------|--------|------------|--------------------------|---------------------------|--------------------------------|----------|--------|
| AU      | nuisance dusts |        | WES        | 10                       |                           |                                | i        | WES    |

#### Notation

Ceiling-C Ceiling value is a limit value above which exposure should not occur

i Inhalable fraction

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 (unless otherwise specified)

### 8.2 Exposure controls

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

##### Eye/face protection



Use safety goggles 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. The times are approximate values from measurements at 22 °C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

##### • type of material

PVC: polyvinyl chloride

##### • material thickness

>0,11 mm

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

>480 minutes (permeation: level 6)

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## • other protection measures

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

## Respiratory protection



Respiratory protection necessary at: Dust formation. Particulate filter device (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White).

## 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

|  |   |
|--|---|
| Physical state   | solid   |
| Colour   | dark brown  |
| Odour  | odourless   |
| Melting point/freezing point                             | not determined  |
| Boiling point or initial boiling point and boiling range | not determined  |
| Flammability   | this material is combustible, but will not ignite readily |
| Lower and upper explosion limit                          | not determined  |
| Flash point  | not applicable  |
| Auto-ignition temperature                                | not determined  |
| Decomposition temperature                                | not relevant  |
| pH (value)   | 2.3 (20 °C)   |
| Kinematic viscosity                                      | not relevant  |
| <u>Solubility(ies)</u>                                   |   |
| Water solubility   | (poorly soluble)  |
| <u>Partition coefficient</u>                             |   |
| Partition coefficient n-octanol/water (log value):       | this information is not available                         |
| Vapour pressure  | not determined  |
| <u>Density and/or relative density</u>                   |   |
| Density  | not determined  |
| Relative vapour density                                  | Information on this property is not available.            |

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|   |   |
|---|---|
| Bulk density  | ~850 kg/m <sup>3</sup>                                      |
| Particle characteristics                            | No data available.  |
| <u>Other safety parameters</u>                      |   |
| Oxidising properties                                | none  |
| <b>9.2 Other information</b>                        |   |
| Information with regard to physical hazard classes: | hazard classes acc. to GHS (physical hazards): not relevant |
| Other safety characteristics:                       | There is no additional information.                         |

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

### 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:** strong oxidiser, Strong alkali

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Classification acc. to GHS**

#### Acute toxicity

Toxic if swallowed. Toxic if inhaled.

#### 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.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

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## **Carcinogenicity**

Shall not be classified as carcinogenic.

## **Reproductive toxicity**

Shall not be classified 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**

toxic if swallowed

### **• If in eyes**

slightly irritant but not relevant for classification

### **• If inhaled**

toxic if inhaled

### **• If on skin**

slightly irritant but not relevant for classification

### **• Other information**

none

## **11.2 Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

Very toxic to aquatic life with long lasting effects.

### **12.2 Persistence and degradability**

Theoretical Oxygen Demand (without nitrification):  $0.8058 \text{ mg/mg}$   
Theoretical Oxygen Demand (with nitrification):  $0.9427 \text{ mg/mg}$   
Theoretical Carbon Dioxide:  $1.25 \text{ mg/mg}$

### **12.3 Bioaccumulative potential**

Data are not available.

### **12.4 Mobility in soil**

Data are not available.

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

Data are not available.

### **12.6 Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0,1\%$ .



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## 12.7 Other adverse effects

Data are not available.

## 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

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

#### Relevant provisions relating to waste(Basel Convention)

#### Properties of waste which render it hazardous

**H6.1**      Poisonous (Acute)

### 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. Non-contaminated packages may be recycled.

## SECTION 14: Transport information

### 14.1 UN number

|                |         |
|----------------|---------|
| <b>UN RTDG</b> | UN 2811 |
| IMDG-Code      | UN 2811 |
| ICAO-TI        | UN 2811 |

### 14.2 UN proper shipping name

|                |                              |
|----------------|------------------------------|
| <b>UN RTDG</b> | TOXIC SOLID, ORGANIC, N.O.S. |
| IMDG-Code      | TOXIC SOLID, ORGANIC, N.O.S. |
| ICAO-TI        | Toxic solid, organic, n.o.s. |
| Technical name | Arsenazo III                 |

### 14.3 Transport hazard class(es)

|                |     |
|----------------|-----|
| <b>UN RTDG</b> | 6.1 |
| IMDG-Code      | 6.1 |
| ICAO-TI        | 6.1 |

### 14.4 Packing group

|                |     |
|----------------|-----|
| <b>UN RTDG</b> | III |
| IMDG-Code      | III |

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ICAO-TI

III

## 14.5 Environmental hazards

hazardous to the aquatic environment

## 14.6 Special precautions for user

There is no additional information.

## 14.7 Transport in bulk according to IMO instruments

The cargo is not intended to be carried in bulk.

## 14.8 Information for each of the UN Model Regulations

### Transport information National regulations Additional information (UN RTDG)

UN number

2811

Class

6.1

Environmental hazards

Yes  
Hazardous to the aquatic environment

Packing group

III

Danger label(s)

6.1  
Fish and tree



Special provisions (SP)

223, 274  
UN RTDG

Excepted quantities (EQ)

E1  
UN RTDG

Limited quantities (LQ)

5 kg  
UN RTDG

Emergency Action Code

2X

### International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name

TOXIC SOLID, ORGANIC, N.O.S.

Particulars in the shipper's declaration

UN2811, TOXIC SOLID, ORGANIC, N.O.S., (Arsenazo III), 6.1, III, MARINE POLLUTANT

Marine pollutant

yes (hazardous to the aquatic environment)

Danger label(s)

6.1, "Fish and tree"



Special provisions (SP)

223, 274

Excepted quantities (EQ)

E1

Limited quantities (LQ)

5 kg

EmS

F-A, S-A

Stowage category

A

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## International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

|  |  |
|--|--|
| Proper shipping name                     | Toxic solid, organic, n.o.s.                                   |
| Particulars in the shipper's declaration | UN2811, Toxic solid, organic, n.o.s., (Arsenazo III), 6.1, III |
| Environmental hazards                    | YES (hazardous to the aquatic environment)                     |
| Danger label(s)                          | 6.1  |
|  |  |
| Special provisions (SP)                  | A3, A5   |
| Excepted quantities (EQ)                 | E1   |
| Limited quantities (LQ)                  | 10 kg  |

## SECTION 15: Regulatory information

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

There is no additional information.

#### Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

#### National inventories

| Country | Inventory | Status              |
|---------|-----------|---------------------|
| CN      | IECSC     | substance is listed |
| EU      | ECSI      | substance is listed |
| KR      | KECI      | substance is listed |
| NZ      | NZIoC     | substance is listed |
| TW      | TCSI      | substance is listed |
| VN      | NCI       | substance is listed |

#### Legend

|       |   |
|-------|---|
| ECSI  | EC Substance Inventory (EINECS, ELINCS, NLP)                            |
| IECSC | Inventory of Existing Chemical Substances Produced or Imported in China |
| KECI  | Korea Existing Chemicals Inventory                                      |
| NCI   | National Chemical Inventory   |
| NZIoC | New Zealand Inventory of Chemicals                                      |
| TCSI  | Taiwan Chemical Substance Inventory                                     |

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

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## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

| Section | Former entry (text/value) | Actual entry (text/value)  | Safety-relevant |
|---------|---------------------------|--|-----------------|
| 2.3     |                           | Endocrine disrupting properties:<br>Does not contain an endocrine disruptor (ED) at a concentration of ≥ 0,1%. | yes             |
| 14.8    |                           | Emergency Action Code:<br>2X   | yes             |
| 15.1    |                           | National inventories:<br>change in the listing (table)   | yes             |

### Abbreviations and acronyms

| Abbr.     | Descriptions of used abbreviations  |
|-----------|---|
| CAS       | Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)    |
| Ceiling-C | Ceiling value   |
| DGR       | Dangerous Goods Regulations (see IATA/DGR)  |
| ED        | Endocrine disruptor   |
| EINECS    | European Inventory of Existing Commercial Chemical Substances   |
| ELINCS    | European List of Notified Chemical Substances   |
| EmS       | Emergency Schedule  |
| GHS       | "Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations |
| IATA      | International Air Transport Association   |
| IATA/DGR  | Dangerous Goods Regulations (DGR) for the air transport (IATA)  |
| ICAO      | International Civil Aviation Organization   |
| ICAO-TI   | Technical instructions for the safe transport of dangerous goods by air                                   |
| IMDG      | International Maritime Dangerous Goods Code   |
| IMDG-Code | International Maritime Dangerous Goods Code   |
| NLP       | No-Longer Polymer   |
| PBT       | Persistent, Bioaccumulative and Toxic   |
| STEL      | Short-term exposure limit   |
| TWA       | Time-weighted average   |
| UN RTDG   | UN Recommendations on the Transport of Dangerous Good   |
| vPvB      | Very Persistent and very Bioaccumulative  |
| WES       | Safe Work Australia: Workplace exposure standards for airborne contaminants                               |

### Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

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UN Recommendations on the Transport of Dangerous Good. International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

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

| Code | Text                |
|------|---------------------|
| H301 | Toxic if swallowed. |
| H331 | Toxic if inhaled.   |

## Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.