



Safety Data Sheet
acc. to OSHA HCS (HazCom 2024)

Date of issue: 05/30/2025

Reviewed on 05/23/2025

1 Identification

- Product identifier
- Trade name: Vario Cu 1 F10 ml
- Other means of identification
- Catalogue number: 00530309, 530300, 530303, 530302, 4530300, 4530303, 280205
- Application of the substance / the mixture: Reagent for water analysis
- Manufacturer/Supplier:
Tintometer Inc.
6456 Parkland Drive
Sarasota, FL 34243
USA
phone: (941) 756-6410
fax: (941) 727-9654
www.lovibond.us
Made in Germany
- Emergency telephone number: + 1 866 928 0789 (English, French, Spanish)

2 Hazard(s) identification

- Classification of the substance or mixture The product is not classified as hazardous.
- Label elements
- GHS label elements none
- Hazard pictograms none
- Signal word none
- Hazard statements none
- Classification according to (d)(1)(ii) of § 1910.1200
The SDS issuer does not object to the classifications provided by importers or manufacturers of precursor products.
- Hazards not otherwise classified
There are no adverse physical or health effects known that are not covered by the hazard classes of the Hazard Communications Standard.

3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of organic and inorganic compounds
- Composition and Information on Ingredients:
Percent ranges are used due to the confidential product information.

CAS: 63451-34-3	2,2'-Bichinolin-4,4'-dicarbon acid dipotassium	1–5%
EINECS: 264-196-1	⚠ Skin irritation 2, H315; Eye irritation 2A, H319; Specific target organ toxicity (single exposure) 3, H335	

4 First-aid measures

- Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: Supply fresh air.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
Rinse opened eye for several minutes (at least 15 min) under running water. If symptoms persist, consult a doctor.
- After swallowing:
Rinse out mouth and then drink 1-2 glasses of water.
If symptoms persist consult doctor.

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· Most important symptoms and effects, both acute and delayed

after swallowing:

sickness

vomiting

abdominal pain

diarrhoea

general feeling of sickness

· Indication of any immediate medical attention and special treatment needed: No further relevant information available.

5 Fire-fighting measures

· Extinguishing media**· Suitable extinguishing agents:** Use fire fighting measures that suit the environment.**· Special hazards arising from the substance or mixture**

The product is not combustible.

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Phosphorus oxides (P_xO_x)

Potassium oxide

Sodium oxide

· Advice for firefighters**· Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

· Additional information

Collect contaminated fire fighting water separately. It must not enter the sewage system.

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

Ambient fire may liberate hazardous vapours.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures**· Advice for non-emergency personnel:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· Advice for emergency responders: Protective equipment: see section 8**· Environmental precautions:** Do not allow product to reach sewage system or any water course.**· Methods and material for containment and cleaning up:**

Ensure adequate ventilation.

Pick up mechanically.

Dispose contaminated material as waste according to section 13.

· Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· Precautions for safe handling**· Advice on safe handling:** Provide suction extractors if dust is formed.**· Hygiene measures:**

The usual precautionary measures for handling chemicals should be followed.

Do not eat, drink or smoke when using this product.

Wash hands before breaks and at the end of work.

· Conditions for safe storage, including any incompatibilities**· Requirements to be met by storerooms and receptacles:** Store in a cool location.**· Information about storage in one common storage facility:** Store away from oxidizing agents.**· Further information about storage conditions:**

Protect from heat and direct sunlight.

Store in cool, dry conditions in well sealed receptacles.

Protect from exposure to the light.

Protect from humidity and water.

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This product is hygroscopic.

· **Recommended storage temperature:** 20°C +/- 5°C (approx. 68°F)· **Specific end use(s)** No further relevant information available.

* 8 Exposure controls/personal protection

· **Control parameters**· **Components with limit values that require monitoring at the workplace:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the creation were used as basis.· **Engineering measures:**Technical measures and appropriate working operations should be given priority over the use of personal protective equipment.
See item 7.· **Personal protective equipment:**

Protective clothing should be selected specifically for the workplace, depending on concentration and quantity of the hazardous substances handled.

· **Breathing equipment:**

Under normal use conditions according to the instruction manual no personal protective equipment is needed.

If exposure limits are exceeded or health impacts are experienced use respiratory protective device against the effects of fume/dust/aerosol.

· **Recommended filter device for short term use:** Filter P1· **Protection of hands:**

Preventive skin protection by use of skin-protecting agents is recommended.

After use of gloves apply skin-cleaning agents and skin cosmetics.

· **Material of gloves**

Nitrile rubber, NBR

Recommended thickness of the material: ≥ 0.11 mm· **Penetration time of glove material**Value for the permeation: Level ≤ 1 (10 min)

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

· **Eye protection:**

Safety glasses

use against the effects of fumes / dust

Use protective goggles that have been tested and approved in accordance with government standards (like NIOSH).

· **Body protection:** Protective work clothing· **Limitation and supervision of exposure into the environment:**

Do not allow product to reach sewage system or any water course.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**· **Physical state**

Solid

· **Form:**

Powder

· **Color:**

Cream colored

· **Odor:**

Odorless

· **Odor threshold:**

Not applicable.

· **Melting point/freezing point:**

Not determined.

· **Initial boiling point and boiling range:**

Not determined.

· **Flammability:**

The product is not combustible.

· **Danger of explosion:**

Product does not present an explosion hazard.

· **Flammability or explosive limits:**

Lower:

Not applicable.

Upper:

Not applicable.

· **Flash point:**

Not applicable.

· **Auto-ignition temperature:**

Product is not self-igniting.

· **Decomposition temperature:**

Not determined.

· **pH-value (13.5 g/l) at 20°C (68°F):**

6.7

· **Kinematic viscosity:**

Not applicable (solid).

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· Solubility(ies)	
· Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not applicable (mixture).
· Vapor Pressure:	Not applicable.
· Density:	Not determined.
· Relative density:	Not determined.
· Relative vapor density:	Not applicable.
· Particle characteristics	Not determined.
· Information with regard to physical hazard classes	
· Oxidizing properties:	none
· Corrosive to metals	Based on available data, the classification criteria are not met.
· Other information	
· Solids content:	100 %

10 Stability and reactivity

- **Reactivity** see section "Possibility of hazardous reactions"
- **Chemical stability** Stable at ambient temperature (room temperature).
- **Possibility of hazardous reactions**
Reacts with acids, alkalis and oxidizing agents.
--> Forms heat.
- **Conditions to avoid** Strong heating (decomposition)
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** see section 5

*11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:** Based on available data, the classification criteria are not met.
- **Primary irritant effect:**
- **on the skin:** Based on available data, the classification criteria are not met.
- **on the eye:** Based on available data, the classification criteria are not met.
- **Sensitization:** Based on available data, the classification criteria are not met.
- **Information on components:**
- **Interactive effects** No interactive effects between components are known.
- **Other information:** see section 8 / 15
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)
None of the ingredients is listed.
· NTP (National Toxicology Program)
None of the ingredients is listed.
· OSHA-Ca (Occupational Safety & Health Administration)
None of the ingredients is listed.

- **Alternative sources for toxicological information** No non-standard sources for toxicological information where used.
- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction):** The following statements refer to the mixture:
 - **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
 - **Carcinogenicity** Based on available data, the classification criteria are not met.
 - **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -single exposure** Based on available data, the classification criteria are not met.
- **STOT (specific target organ toxicity) -repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.

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Other information

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

12 Ecological information*Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability** No further relevant information available.

· **Bioaccumulative potential** No further relevant information available.

· **Mobility in soil** No further relevant information available.

Other adverse effects

Depending on the concentration, phosphorus and/or nitrogen compounds may contribute to the eutrophication of water supplies. Avoid transfer into the environment.

13 Disposal considerations**Waste treatment methods****Recommendation:**

Disposal must be made according to official regulations.

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Hand over to hazardous waste disposers.

Uncleaned packagings:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· UN-Number	
· DOT, IMDG, IATA	none
· UN proper shipping name	
· DOT, IMDG, IATA	none
· Transport hazard class(es)	
· DOT, IMDG, IATA	
· Class	none
· Packing group	
· DOT, IMDG, IATA	none
· Environmental hazards:	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· Special precautions for user	Not applicable.

15 Regulatory information*Safety, health and environmental regulations/legislation specific for the substance or mixture****Sara****Section 355 (Extremely hazardous substances):**

None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):

None of the ingredients is listed.

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· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients is listed.
· Proposition 65
· Chemicals known to cause cancer:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients is listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients is listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients is listed.
· New Jersey Right-to-Know List:
CAS: 7558-79-4 disodium hydrogenorthophosphate
· New Jersey Special Hazardous Substance List:
None of the ingredients is listed.
· Pennsylvania Right-to-Know List:
CAS: 7558-79-4 disodium hydrogenorthophosphate
· Pennsylvania Special Hazardous Substance List:
CAS: 7558-79-4 disodium hydrogenorthophosphate
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· EPA (Environmental Protection Agency)
None of the ingredients is listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health)
None of the ingredients is listed.
· Information about limitation of use: Not required.
· 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.

· Relevant phrases

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· Version number / date of revision: 22 / 05/23/2025

· Abbreviations and acronyms:

OECD: Organisation for Economic Co-operation and Development

STOT: specific target organ toxicity

SE: single exposure

RE: repeated exposure

EC50: half maximal effective concentration

IC50: half maximal inhibitory concentration

NOEL or NOEC: No Observed Effect Level or Concentration

ACGIH® - American Conference of Governmental Industrial Hygienists

•A1 - Confirmed human carcinogen

•A2 - Suspected human carcinogen

•A3 - Confirmed animal carcinogen with unknown relevance to humans

•A4 - Not classifiable as a human carcinogen

•A5 - Not suspected as a human carcinogen

IARC - International Agency for Research on Cancer

•Group 1 - Carcinogenic to humans

•Group 2A - Probably carcinogenic to humans

•Group 2B - Possibly carcinogenic to humans

•Group 3 - Not classifiable as to carcinogenicity to humans

•Group 4 - Probably not carcinogenic to humans

NTP - National Toxicology Program, U.S. Department of Health and Human Services

•Group K - Known to be Human Carcinogens

•Group R - Reasonably Anticipated to be Human Carcinogens

IMDG: International Maritime Code for Dangerous Goods

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DOT: US Department of Transportation
ATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin irritation 2: Skin corrosion/irritation – Category 2
Eye irritation 2A: Serious eye damage/eye irritation – Category 2A
Specific target organ toxicity (single exposure) 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources** Data arise from safety data sheets, reference works and literature.

· *** Data compared to the previous version altered.**

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