

### Safety data sheet according to 1907/2006/EC, Article 31

Printing date 13.05.2016

Version number 26

Revision: 13.05.2016

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

- **1.1 Product identifier**
- **Product name:** Vario Ammonia Salicylate F5 ml
- **Catalog number:** 00531169, 531160, 4531160
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the preparation:** Reagent for water analysis
- **1.3 Details of the supplier of the safety data sheet**
- **Supplier:**  
Tintometer GmbH  
Schleefstr. 8-12  
DE-44287 Dortmund  
Made in Germany  
www.lovibond.com
- **Informing department:**  
e-mail: produktsicherheit@tintometer.de  
Product Safety Department
- **Contact for technical details:**  
Technical Department  
e-mail: technik@tintometer.de
- **1.4 Emergency telephone number:**  
Poison Center Berlin, Germany  
phone: 0049-30 30686 790  
Languages: English and German

phone: +49 (0) 231 945100  
E-Mail: sales@tintometer.de

#### SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS07

Acute Tox. 4 H302 Harmful if swallowed.  
Eye Irrit. 2 H319 Causes serious eye irritation.

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



GHS07

- **Signal word** Warning
- **Hazard-determining components of labelling:**  
sodium salicylate  
sodium nitroprusside dihydrate
- **Hazard statements**  
H302 Harmful if swallowed.  
H319 Causes serious eye irritation.
- **Precautionary statements**  
P280 Wear protective gloves / eye protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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P337+P313 If eye irritation persists: Get medical advice/attention.

 • **2.3 Other hazards** No further relevant information available.

 • **Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

### SECTION 3: Composition/information on ingredients

 • **3.2 Mixtures**

 • **Description:** Mixture of organic and inorganic compounds

 • **Dangerous components:**

CAS: 54-21-7 EINECS: 200-198-0	sodium salicylate	⚠ Acute Tox. 4, H302; Eye Irrit. 2, H319	40-50%
CAS: 13755-38-9 EINECS: 238-373-9	sodium nitroprusside dihydrate	⚠ Acute Tox. 3, H301	0.1-≤2.5%

 • **Additional information** For the wording of the listed hazard phrases refer to section 16.

### SECTION 4: First aid measures

 • **4.1 Description of first aid measures**

 • **General information** Instantly remove any clothing soiled by the product.

 • **After inhalation** Supply fresh air; consult doctor in case of symptoms.

 • **After skin contact** Instantly rinse with water.

 • **After eye contact**

Rinse opened eye for several minutes under running water (at least 15 min). If symptoms persist, consult doctor.

 • **After swallowing**

Rinse out mouth and then drink 1-2 glasses of water.

Seek medical treatment.

 • **4.2 Most important symptoms and effects, both acute and delayed:**

irritations

absorption

after inhalation:

mucous membrane irritation

coughing

breathing difficulty

after swallowing:

sickness

vomiting

diarrhoea

after swallowing of large amounts:

tinnitus (ringing in the ears)

headache

dizziness

coma

fever

disorientation

drop in blood pressure

disorder of electrolyte balance

cramps

 • **Danger** Danger of system failure.

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

### SECTION 5: Firefighting measures

 • **5.1 Extinguishing media**

 • **Suitable extinguishing agents** Use fire fighting measures that suit the environment.

 • **5.2 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.

Hydrogen chloride (HCl)

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Sulphur oxides (SO<sub>x</sub>)  
 nitrogen oxides (NO<sub>x</sub>)  
 nitrous gases  
 cyanide compounds, sodium monoxide

- **5.3 Advice for firefighters**

- **Protective equipment:**

Wear self-contained breathing apparatus.  
 Wear full protective suit.

- **Additional information**

Collect contaminated fire fighting water separately. It must not enter drains.  
 Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.  
 Ambient fire may liberate hazardous vapours.

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### SECTION 6: Accidental release measures

- **6.1 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

- **6.2 Environmental precautions:** Do not allow product to reach sewage system or water bodies.

- **6.3 Methods and material for containment and cleaning up:**

Ensure adequate ventilation.  
 Collect mechanically.  
 Dispose of contaminated material as waste according to item 13.

- **6.4 Reference to other sections**

See Section 8 for information on personal protection equipment.  
 See Section 13 for information on disposal.

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### SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**

- **Advice on safe handling:**

Use only in well ventilated areas.  
 Prevent formation of dust.

- **Hygiene measures:**

Avoid contact with the eyes.  
 Take off immediately all contaminated clothing.  
 Wash hands during breaks and at the end of the work.  
 Do not eat, drink or smoke when using this product.

- **7.2 Conditions for safe storage, including any incompatibilities**

- **Storage**

- **Requirements to be met by storerooms and containers:** Store in cool location.

- **Information about storage in one common storage facility:** Not required.

- **Storage class** 13

- **Further information about storage conditions:**

Store in cool, dry conditions in well sealed containers.  
 Protect from heat and direct sunlight.  
 Protect from the effects of light.  
 Store under dry conditions.  
 Protect from humidity and keep away from water.  
 This product is hygroscopic.

- **Recommended storage temperature:** 20 °C +/- 5 °C

- **7.3 Specific end use(s)** No further relevant information available.

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### SECTION 8: Exposure controls/personal protection

- **8.1 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.

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- **DNELs**  
Derived No Effect Level (DNEL)

<b>CAS: 54-21-7 sodium salicylate</b>		
Oral	DNEL	4 mg/kg (Worker / long-term /systemic effects)
Dermal	DNEL	4 mg/kg (Worker / long-term /systemic effects)
		2 mg/kg (Consumer / long-term / systemic effects)
Inhalative	DNEL	7.051 mg/m <sup>3</sup> (Worker / long-term /systemic effects)
		1.738 mg/m <sup>3</sup> (Consumer / long-term / systemic effects)

- **Recommended monitoring procedures:**  
Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms DIN EN 482 and DIN EN 689.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **8.2 Exposure controls**
- **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**
- **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2
- **Protection of hands:**  
Protective gloves.  
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:  $\geq 0.11$  mm
- **Penetration time of glove material**  
Value for the permeation: Level = 1 ( < 10 min )  
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing.
- **Limitation and supervision of exposure into the environment:** Avoid release to the environment.

## SECTION 9: Physical and chemical properties

· <b>9.1 Information on basic physical and chemical properties</b>	
· <b>Appearance:</b>	
Form / Physical state:	Powder
Colour:	Whitish
· <b>Odour:</b> Odourless	
· <b>Odour threshold:</b> Not applicable	
· <b>pH-value (50 g/l) at 20 °C:</b> 8.1	
· <b>Melting point/Freezing point:</b> Not determined	
· <b>Initial boiling point and boiling range:</b> Not determined	
· <b>Flash point:</b> Not applicable	
· <b>Flammability (solid, gas):</b> The product is not combustible.	
· <b>Ignition temperature:</b> Not determined.	
· <b>Decomposition temperature:</b> Not determined.	
· <b>Auto-ignition temperature:</b> Product is not self-igniting.	
· <b>Explosive properties:</b> Product is not explosive.	
· <b>Flammability or explosive limits:</b>	
Lower:	Not applicable
Upper:	Not applicable

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· <b>Oxidising properties:</b>	none
· <b>Vapour pressure:</b>	Not applicable.
· <b>Density at 20 °C:</b>	1.25 g/cm <sup>3</sup>
· <b>Relative density:</b>	Not determined.
· <b>Vapour density:</b>	Not applicable.
· <b>Evaporation rate:</b>	Not applicable.
· <b>Solubility(ies):</b>	
<b>Water:</b>	Soluble
· <b>Partition coefficient (n-octanol/water):</b>	Not applicable.
· <b>Viscosity:</b>	Not applicable.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>Solids content:</b>	100.0 %
· <b>9.2 Other information</b>	No further relevant information available.

### SECTION 10: Stability and reactivity

- **10.1 Reactivity** Dust can combine with air to form an explosive mixture.
- **10.2 Chemical stability** Stable at ambient temperature (room temperature).
- **10.3 Possibility of hazardous reactions**  
 Reacts with acids, alkalis and oxidizing agents  
 Contact with acids releases toxic gases  
 Reacts with oxidizing agents  
 --> forms heat
- **10.4 Conditions to avoid** Strong heating (decomposition)
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**  
 hydrogen cyanide (prussic acid)  
 see section 5

### SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**

- **Acute toxicity**  
 Harmful if swallowed.

- **Acute toxicity estimate (ATE<sub>(MIX)</sub>) - Calculation method:**

Oral	ATE <sub>(MIX)</sub>	1560 mg/kg (.)
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- **LD/LC50 values that are relevant for classification:**

**CAS: 54-21-7 sodium salicylate**

Oral	LD50	930 mg/kg (rat) (RTECS)
	LDLo	700 mg/kg (hmn) (RTECS)

**CAS: 13755-38-9 sodium nitroprusside dihydrate**

Oral	LD50	99 mg/kg (rat) (RTECS, anhydrous substance)
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- **Primary irritant effect:**
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Information on components:** CAS 54-21-7: chronic: dermatitis
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **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.

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- **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.

- **Additional toxicological information:**

The following complies to cyanogen compounds / nitriles in general:

Utmost caution! Release of hydrocyanic acid is possible - blockade of cellular respiration.

The following applies to soluble iron compounds: nausea and vomiting after swallowing. The absorption of large quantities is followed by cardiovascular disorders. Toxic effect on liver and kidneys.

CAS 54-21-7: skin resorption (effects similar to those of ingestion)

CAS 54-21-7: chronic: central nervous system effects

## SECTION 12: Ecological information

- **12.1 Toxicity**

- **Aquatic toxicity:**

**CAS: 54-21-7 sodium salicylate**

EC10	304 mg/l (Daphnia magna) (24) (ECOTOX)
LC50	1370 mg/l/96h (fathead minnow) (ECOTOX)

**CAS: 13755-38-9 sodium nitroprusside dihydrate**

EC50	1.0 mg/l/24h (Daphnia magna)
LC50	0.05 mg/l (fish)

- **Other information:**

Toxic for fish:

the following applies to dissolved iron compounds in general:

toxic as from 0.9 mg/l at pH 6.5 - 7.5

lethal as from 1.0 mg/l at pH 5.5 - 6.7

- **12.2 Persistence and degradability** No further relevant information available.

- **12.3 Bioaccumulative potential**

Pow = n-octanol/wasser partition coefficient

log Pow < 1 = Does not accumulate in organisms.

**CAS: 54-21-7 sodium salicylate**

log Pow	-1.43 (.) (calculated)
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- **12.4 Mobility in soil** No further relevant information available.

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

This mixture does not contain any substances that are assessed to be persistent, bioaccumulative and toxic (PBT) or very persistent and very bioaccumulative (vPvB), according to the criteria given in Annex XIII of Regulation (EC) No. 1907/2006.

- **12.6 Other adverse effects** Avoid transfer into the environment.

- **Water hazard:**

Mixture (Self-assessment acc. VwVwS Annex 4, German regulation):

Water hazard class 2: hazardous for water.

Do not allow product to reach ground water, water bodies or sewage system.

Danger to drinking water if even small quantities leak into soil.

## SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**

- **Recommendation**

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

Hand over to disposers of hazardous waste.

- **European waste catalogue**

16 05 06*	laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals
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- **Uncleaned packagings:**

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

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· **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### SECTION 14: Transport information

· <b>14.1 UN-Number</b> · <b>ADR,RID, ADN, IMDG, IATA</b>	Void
· <b>14.2 UN proper shipping name</b> · <b>ADR,RID, ADN, IMDG, IATA</b>	Void
· <b>14.3 Transport hazard class(es)</b> · <b>ADR,RID, ADN, IMDG, IATA</b> · <b>Class</b>	Void
· <b>14.4 Packing group</b> · <b>ADR,RID, IMDG, IATA</b>	Void
· <b>14.5 Environmental hazards:</b>	Not applicable.
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.

### SECTION 15: Regulatory information

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

· **Regulation (EC) No 689/2008 concerning the export and import of dangerous chemicals:**

None of the ingredients is listed.

· **Regulation (EC) No 1005/2009 on substances that deplete the ozone layer:**

None of the ingredients is listed.

· **Directive 2012/18/EU (SEVESO III):**

· **Named dangerous substances - ANNEX I** None of the ingredients is listed.

· **Information about limitation of use:**

Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC) .  
Employment restrictions concerning young persons must be observed.

· **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Relevant phrases**

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H319 Causes serious eye irritation.

· **Training hints** Provide adequate information, instruction and training for operators.

· **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

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

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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)  
DNEL: Derived No-Effect Level (REACH)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PNEC: Predicted No-Effect Concentration (REACH)  
SVHC: Substances of Very High Concern  
Acute Tox. 3: Acute toxicity – Category 3  
Acute Tox. 4: Acute toxicity – Category 4  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

**• Sources**

Data arise from safety data sheets, reference works and literature.  
RTECS (Registry of Toxic Effects of Chemical Substances )

• \* Data compared to the previous version altered.

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