



YSI sells this product under agreement with the original manufacturer. YSI assumes no legal liability or responsibility for the accuracy, completeness or usefulness of any information set forth in this MSDS.

a xylem brand

Page 1/8

## Safety Data Sheet acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

### 1 Identification

- **Product identifier**
- **Trade name:** Vario Sulfamic Acid F10
- **Catalogue number:** 251395Y
- **Relevant identified uses of the substance or mixture and uses advised against:** No further relevant information available.
- **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
- **Distributor/Supplier:** YSI, Inc  
**Address** 1700/1725 Brannum Lane  
Yellow Springs, Ohio 45387  
**Telephone** (937) 767-7241  
**E-mail** MSDSinfo@Xyleminc.com
- **Emergency telephone number:** Chemtrec® : (US & Canada) 800-424-9300 (International) +1 (703) 527-3887

### 2 Hazard(s) identification

- **Classification of the substance or mixture**

US-GHS



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2A H319 Causes serious eye irritation.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**



Xi; Irritant

R36/38: Irritating to eyes and skin.

R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** GHS07

· **Signal word** Warning

· **Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P273 Avoid release to the environment.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

- **Canadian Hazard Symbols:**



(Contd. on page 2)

USA

# Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 1)

- **WHMIS classification:**

E

Corrosive material

- **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 0

Reactivity = 1

## \* 3 Composition/information on ingredients

- **Chemical characterization: Mixtures**

- **Description:** mixture of inorganic compounds

- **Composition and Information on Ingredients:**

CAS: 5329-14-6	sulphamic acid	> 99%
EINECS: 226-218-8	☒ Xi R36/38	
Index number: 016-026-00-0	R52/53	
RTECS: WO 5950000	⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Aquatic Chronic 3, H412	

- **REACH - pre-registered substances** All components are REACH pre-registered.

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

## 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 (15 min) under running water.

Call a doctor immediately.

- **After swallowing:**

Do not induce vomiting.

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

Seek medical treatment.

- **Most important symptoms and effects, both acute and delayed**

irritations

breathing difficulty

coughing

gastric or intestinal disorders

pain

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

## 5 Fire-fighting measures

- **Extinguishing media**

- **Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- **Special hazards arising from the substance or mixture**

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

Nitrogen oxides (NO<sub>x</sub>)

nitrous gases

Sulfur oxides (SO<sub>x</sub>)

Sulphur dioxide (SO<sub>2</sub>)

Ammonia (NH<sub>3</sub>)

- **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.

(Contd. on page 3)

— USA —

# Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 2)

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**  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to item 13.  
Pick up mechanically.  
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

- **Precautions for safe handling** Thorough dedusting.
- **Information about protection against explosions and fires:** The product is not flammable.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:**  
store away from water  
store away from metals
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Protect from heat and direct sunlight.  
Store in dry conditions.  
Protect from humidity and water.  
Protect from exposure to the light.
- **Recommended storage temperature:** 20 °C +/- 5 °C (approx. 68°F)
- **Storage class:** 8 B
- **Specific end use(s)** No further relevant information available.

## \* 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **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.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Avoid contact with the eyes and skin.  
Do not eat, drink, smoke or sniff while working.
- **Breathing equipment:** Use respiratory protective device against the effects of fumes/dust/aerosol.
- **Recommended filter device for short term use:** Filter P2
- **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:  $\geq 0.11$  mm

(Contd. on page 4)

— USA —

# Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 3)

- **Penetration time of glove material**

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

Value for the permeation: Level  $\leq$  1 (10 min)

- **Eye protection:**

Tightly sealed goggles

use against the effects of fumes / dust

- **Body protection:** Protective work clothing

## 9 Physical and chemical properties

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

· <b>Odor Threshold:</b>	Not applicable.
· <b>Appearance:</b>	
· <b>Form:</b>	Powder
· <b>Color:</b>	White
· <b>Odor:</b>	Odorless
· <b>pH-value (16 g/l) at 20 °C (68 °F):</b>	1.8
· <b>Melting point/Melting range:</b>	205 °C (401 °F)
· <b>Boiling point/Boiling range:</b>	Not applicable.
· <b>Freezing Point:</b>	Not applicable.
· <b>Flash point:</b>	Not applicable.
· <b>Flammability (solid, gaseous):</b>	Product is not flammable.
· <b>Ignition temperature:</b>	Undetermined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Specific Gravity:</b>	Not applicable.
· <b>Density at 20 °C (68 °F):</b>	2.13 g/cm <sup>3</sup> (17.775 lbs/gal)
· <b>Bulk density at 20 °C (68 °F):</b>	600 kg/m <sup>3</sup>
· <b>Vapour density</b>	Not applicable.
· <b>Evaporation rate</b>	Not applicable.
· <b>Solubility in / Miscibility with</b>	
· <b>Water at 20 °C (68 °F):</b>	213 g/l
· <b>Coefficient of Water / Oil Distribution:</b>	Not applicable.
· <b>Solvent content:</b>	
· <b>Organic solvents:</b>	0.0 %
· <b>Solids content:</b>	100.0 %
· <b>Other information</b>	No further relevant information available.

## 10 Stability and reactivity

- **Reactivity**

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.

- **Possibility of hazardous reactions**

Reacts with water.

Corrosive action on metals.

Forms hydrogen in aqueous solution with metals (Danger of explosion!).

Hydrogen is formed in the presence of aluminum or zinc.

Aqueous solution reacts acidic.

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

- **Incompatible materials:**

alkalis

acids

metals

halogen compounds

nitrates

chlorine

oxidizing agents

(Contd. on page 5)

— USA —

# Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 4)

· **Hazardous decomposition products:** see chapter 5

## \*11 Toxicological information

· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values that are relevant for classification:****5329-14-6 sulphamidic acid**

Oral	LD50	3160 mg/kg (rat) (GESTIS)
------	------	------------------------------

· **Primary irritant effect:**· **on the skin:** Irritant to skin and mucous membranes.· **on the eye:** Irritating effect.· **Sensitization:** No sensitizing effects known.· **Additional toxicological information:**

The aerosol is corrosive to the eyes, the skin and the respiratory tract. Inhalation of sulfamic acid aerosols may cause lung oedema.

Mists may be irritant to the mucous membranes and upper respiratory tract.

· **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.

· **Carcinogenicity:** NTP? IARC Monographs? OSHA Regulated? see chapter 8 / 15· **Teratogenicity:** Not found.· **Mutagenicity:** Not found.· **Reproductive Toxicity:** Not found.· **Synergistic Products:** None· **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction):**

CAS-Nr.: 5329-14-6:

Bacterial mutagenicity: Salmonella typhimurium - negative (NTP)

## 12 Ecological information

· **Toxicity**· **Aquatic toxicity:****5329-14-6 sulphamidic acid**

LC50	14.2 mg/l/96h (fish) (GESTIS)
	70.3 mg/l/96h (Pimephales promelas) (MERCK / OECD 203)

· **Persistence and degradability** No further relevant information available.· **Other information:** Does not cause biolocial oxygen deficit.· **Bioaccumulative potential** Does not accumulate in organisms [ $\log (Po/w) < 1$ ].· **Behavior in environmental systems:****5329-14-6 sulphamidic acid**

log P(o/w)	0.10 (.)
------------	----------

· **Mobility in soil** No further relevant information available.· **Ecotoxicological effects:**· **Remark:**

Harmful effect due to pH shift.

Harmful to aquatic organisms

Harmful to fish

· **Bacterial toxicity:** CAS-No.: 5329-14-6: Pseudomonas putida EC10 > 1000 mg/l/16h (IUCLID)

(Contd. on page 6)

# Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 5)

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

Rinse off of bigger amounts into drains or the aquatic environment may lead to decreased pH-values. A low pH-value harms aquatic organisms.

- **Results of PBT and vPvB assessment** no further data available

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

## 13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

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

<ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	UN2967
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT / TDG</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG, IATA</b></li> </ul>	Sulfamic acid 2967 Sulfamic acid SULPHAMIC ACID
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT / TDG</b></li> </ul> 	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> </ul> 	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 (C2) Corrosive substances 8
<ul style="list-style-type: none"> <li>· <b>IMDG, IATA</b></li> </ul> 	
<ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	8 Corrosive substances. 8
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>DOT, ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> </ul>	No

(Contd. on page 7)

— USA —

# Safety Data Sheet

acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

Trade name: Vario Sulfamic Acid F10

(Contd. of page 6)

· <b>Special precautions for user</b>	Warning: Corrosive substances
· <b>Danger code (Kemler):</b>	80
· <b>EMS Number:</b>	F-A,S-B
· <b>Segregation groups</b>	Acids
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>ADR</b>	
· <b>Limited quantity (LQ):</b>	5 kg
· <b>Canadian TDG Class:</b>	UN2967 / 8 / III

## \*15 Regulatory information

· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>
· <b>Sara</b>
· <b>Section 355 (Extremely hazardous substances):</b>
None of the ingredients is listed.
· <b>Section 313 (Specific toxic chemical listings):</b>
None of the ingredients is listed.
· <b>TSCA (Toxic Substances Control Act):</b>
All ingredients are listed.
· <b>Proposition 65</b>
· <b>Chemicals known to cause cancer:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for females:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause reproductive toxicity for males:</b>
None of the ingredients is listed.
· <b>Chemicals known to cause developmental toxicity:</b>
None of the ingredients is listed.
· <b>Canadian Ingredient Disclosure List</b>
· <b>Limit 0,1%</b>
None of the ingredients is listed.
· <b>Limit 1%</b>
All ingredients are listed.
· <b>Canadian Domestic Substances List (DSL)</b>
All ingredients are listed.
· <b>Canadian Non-domestic Substance List</b>
None of the ingredients is listed.
· <b>EPA (Environmental Protection Agency)</b>
None of the ingredients is listed.
· <b>NIOSH-Ca (National Institute for Occupational Safety and Health)</b>
None of the ingredients is listed.
· <b>OSHA-Ca (Occupational Safety &amp; Health Administration)</b>
None of the ingredients is listed.
· <b>Australian Inventory of Chemical Substances</b>
All ingredients are listed.
· <b>European EINECS</b>
All ingredients are listed.
· <b>Standard for the Uniform Scheduling of Drugs and Poisons</b>
5329-14-6   sulphamidic acid
S5, S6

(Contd. on page 8)

# Safety Data Sheet

## acc. to ISO/DIS 11014

Printing date 04/24/2014

Reviewed on 04/24/2014

---

**Trade name: Vario Sulfamic Acid F10**


---

(Contd. of page 7)

- **Information about limitation of use:** Employment restrictions concerning young persons must be observed.
  - **This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all of the information required by the CPR**
  - **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.

H412 Harmful to aquatic life with long lasting effects.

R36/38 Irritating to eyes and skin.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment

- **Recommended restriction of use:** professional/industrial use only
- **Date of preparation / last revision** 04/24/2014 / 5

- **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

EC50: effective concentration, 50 percent (in vivo)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: 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)

NFPA: National Fire Protection Association (USA)

WHMIS: Workplace Hazardous Materials Information System (Canada)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

- **Sources**

GESTIS-Stoffdatenbank

IUCLID (International Uniform Chemical Information Database)

Data arise from manufacturers' data sheets, reference works and literature.

- **\* Data compared to the previous version altered.**
- 

USA