

Tartaric Acid Test – Reagent B

Health & Safety data sheet

According to EC Directive 91/155/EC and following amendments

Revision Date: 2016–06-01

Reason for Revision: Reviewed Only

SECTION 1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Product name:

- Mi 554B-020 Reagent B

Application:

- Tartaric Acid test for wine analysis

Manufacturer identification:

Milwaukee Instruments.
2950 Business Park Drive
Rocky Mount, NC 27804

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients:

NAME (EC directives)	EC-Index-No.	CAS No.	LABELLING (EC directives)	CONTENT
Ammonium Vanadate	NA	7803-55-6	T R 20-25-36/37	≥ 0.1% - < 5%
Sodium Hydroxide	011-002-00-6	1310-73-2	C R 35	≥ 0.5% - < 2%

(full text of R phrases in section 16).

SECTION 3 - HAZARD IDENTIFICATION

Irritating to eyes and respiratory system.

SECTION 4 - FIRST AID MEASURES

Remove contaminated, soaked clothing immediately and dispose of safely.

- **After inhalation** : fresh air.
- **After skin contact** : wash off with plenty of water. Remove contaminated clothing.
- **After eye contact** : rinse out immediately with plenty of water and seek medical advice.
- **After swallowing** : immediately drink plenty of water (if necessary several liters). Seek medical advice.

SECTION 5 – FIRE-FIGHTING MEASURES

- **Suitable extinguishing media**
 - In adaptation to materials stored in the neighborhood.
- **Special risks:**
 - Ambient fire may liberate hazardous vapors.
- **Special protective equipment for fire fighting:**
 - Do not stay in dangerous zone without suitable chemical protection clothing and self-contained breathing apparatus.
- **Additional information:**
 - Non combustible.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

- **Personal precautions:**
 - Do not inhale vapors. Avoid substance contact. Ensure supply of fresh air in enclosed rooms.
- **Environmental precautions:**
 - Take up with liquid-absorbent material.
- **Additional notes:**
 - Clean up affected area and dispose according to local regulation.
 - Render harmless: neutralize with diluted sulfuric acid.

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SECTION 7 - HANDLING AND STORAGE

- **Handling:**
 - Cannot be stored indefinitely.
- **Storage:**
 - Tightly closed. Store at room temperature (+15 to +25 °C recommended). Protect from light.
 - Accessible only for authorized persons.

SECTION 8 - EXPOSURE CONTROL/PERSONAL PROTECTION

- **Personal protective equipment:**
 - As appropriate to quantity handled.
- **Respiratory protection:**
 - Required when vapors/aerosols are generated. Work under hood.
- **Protective gloves:**
 - Rubber or plastic
- **Eye protection:**
 - Goggles or face mask

SECTION 9 - PHYSICAL/CHEMICAL PROPERTIES

- **Appearance and odor** : Colorless liquid; odorless.
- **Solubility in water** : Soluble
- **Melting point** : ND
- **Boiling point** : NA
- **pH value at 20°C** : > 10
- **Density at 20°C** : 1.00 g/cm³
- **Ignition temperature** : ND
- **Flash point** : NA
- **Explosion limits** : NA

SECTION 10 - STABILITY AND REACTIVITY

- **Conditions to be avoided:**
 - Strong heating.
- **Hazardous decomposition products:**
 - In the event of fire: see section 5.
- **Substances to be avoided:**
 - Ammonium compounds (formed could be: ammonia), acids
 - The generally known reaction partners of water.
- **Further information:**
 - Stable

SECTION 11 - TOXICOLOGICAL INFORMATION

Quantitative data on the toxicity of this product are not available.

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Sodium Hydroxide – as the pure substance:

Acute toxicity

Specific symptoms in animal studies:

Eye irritation test (rabbit): burns.

Skin irritation test (rabbit): burns.

Subacute to chronic toxicity

Mutagenicity (mammal cell test): micronucleus negative.

Bacterial mutagenicity: Escherichia coli: negative.

Bacterial mutagenicity: Ames test: negative.

No teratogenic effect in animal experiments.

Further toxicological information

In case of inhalation: burns of mucosal membranes.

In case of skin contact: burns.

In case of eye contact: burns. Risk of blindness.

In case of ingestion: burns in mouth, throat, oesophagus and gastrointestinal tract. Risk of perforation in the oesophagus and stomach.

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APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Ammonium monovanadate, as the pure substance:

Acute toxicity

LC50 (inhalation, rat): >2.5 mg/l /4 h.

LD50 (dermal, rabbit): >2500 mg/kg.

LD50 (oral, rat): 169 mg/kg.

Specific symptoms in animal studies:

Skin irritation test (human): No irritation.

Subacute to chronic toxicity

Mutagenicity (mammal cell test): positive (in vitro).

Bacterial mutagenicity: Bacillus subtilis: positive.

Further toxicological information

In case of inhalation: mucosal irritations, coughing, dyspnoea.

In case of skin contact: irritant effects.

Other notes:

Vanadium and its compounds generally cause irritations after eye and skin contact and mucosal irritations, coughing, and dyspnoea after inhalation. After absorption of toxic quantities changes in the blood picture, loss or weight, cardiovascular complaints.

The following applies to ammonium salts in general: after swallowing: local irritation symptoms, nausea, vomiting, diarrhoea. Systemic effect: after the uptake of very large quantities: drop in blood pressure, collapse, CNS disorders, spasms, narcotic conditions, respiratory paralysis, haemolysis.

Further data:

Further hazardous properties cannot be excluded.

The product should be handled with the care usual when dealing with chemicals.

SECTION 12 - ECOLOGICAL INFORMATION

Quantitative data on the ecotoxicity of this product are not available.

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Sodium Hydroxide– as the pure substance:

Biologic degradation: methods for the determination of biodegradability are not applicable to inorganic substances.

Behavior in environmental compartments: concentration in organisms is not to be expected

Ecotoxic effects

Biological effects: Harmful effect on aquatic organisms. Toxic effect on fish and plankton. Harmful effect due to pH shift. Forms corrosive mixtures with water even if diluted. Does not cause biological oxygen deficit.

Neutralization possible in waste water treatment plants.

Fish toxicity: Onchorhynchus mykiss LC₅₀: 45.4 mg/L /96 h (in hard water). L.macrochirus LC₅₀: 99 mg/L /48 h.

Daphnia toxicity: Daphnia magna EC₅₀: 76 mg/L /24 h.

APPLICABLE TO PARTIAL COMPONENT(S):

The following applies to Ammonium monovanadate – as the pure substance:

Biologic degradation: methods for the determination of biodegradability are not applicable to inorganic substances.

Ecotoxic effects

Biological effects: Toxic for aquatic organisms.

Fish toxicity: Ictalurus punctatus LC₅₀: 2.6 mg/L /96 h.

Further ecologic data:

The following applies to vanadium compounds in general: toxic for aquatic organisms: LD₅₀ from 4.8 mg/L up in soft water, from 30 mg/L up in hard water.

The following applies to ammonium ions in genera: biological effects: fish: toxic as from 0.3 mg/L; nourishment for fish: toxic as from 0.3 mg/L.

Do not allow to enter waters, waste waters, or soil!

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SECTION 13 - DISPOSAL CONSIDERATIONS

• **Waste disposal:**

- Chemical residues are generally classified as special waste and thus covered by local regulations. Contact local authorities or disposal companies for advice.
- Handle contaminated packaging in the same way as the substance itself.

SECTION 14 - TRANSPORT INFORMATION

Not subject to transport regulation.

SECTION 15 - REGULATORY INFORMATION

Labeling according to EC Directives:

Symbol:	Xi	Irritant
R-phrases :	36/38	Irritating to eyes and skin.
S-phrases :	26-37/39-45	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).

Contains : Sodium Hydroxide

SECTION 16 - OTHER INFORMATION

- **Text of any R phrases referred to under heading 2:**

20	: Harmful by inhalation.
25	: Toxic if swallowed.
35	: Causes severe burns.
36/37	: Irritating to eyes and respiratory system.
- **Supersedes edition of** : / (1st edition)
- **Legend** : NA Not applicable
ND Not determined

THE INFORMATION CONTAINED HEREIN IS BASED ON THE PRESENT STATE OF OUR KNOWLEDGE. IT CHARACTERIZES THE PRODUCT WITH REGARD TO THE APPROPRIATE SAFETY PRECAUTIONS. IT DOES NOT REPRESENT A GUARANTEE OF THE PROPERTIES OF THE PRODUCT.