

**Section 1. Identification****1.1 Product Identifier** 2612

Product Name	TYTRONICS MANGANESE COLOUR REAGENT (R2)
CAS Number	Mixture
REACH Registration No	A registration number is not available as the substance or its uses are exempt, the annual tonnage does not require a registration or the registration is envisaged for a later date.

**1.2 Relevant identified uses of the substance or mixture & uses advised against**

Uses of Material	Chemical for industrial and laboratory use. Not suitable for domestic use.
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**1.3 Supplier** Vickers Laboratories Ltd

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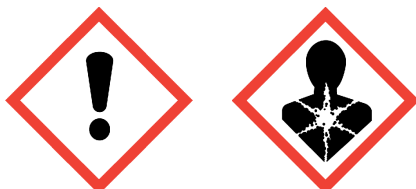
**1.4 Emergency Telephone** (08:00-16:30) +44(0) 113 2362811  
(24hr) 112  
(Have this document to hand)**Section 2. Hazards Identification****2.1 Classification of the substance or mixture****Classification according to regulation 1272/2008/EC**

Skin sensitization, category 1	H317: May cause an allergic skin reaction.
Carcinogenicity, category 2	H351: Suspected of causing cancer.

**2.2 Label elements****Labelling according to regulation 1272/2008/EC**

Signal word Warning

Hazard Pictograms



Hazard Statements May cause an allergic skin reaction. Suspected of causing cancer.

Precautionary Statements Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

## Section 3. Composition

### 3.2 Mixtures

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Hydroxylamine hydrochloride	5470-11-1	226-798-2		5.4%	Met. Corr. 1, Acute Tox. 4 (O), Skin Irrit. 2, Acute Tox. 4 (D), Eye Irrit. 2, Skin Sens. 1, Carc. 2, STOT RE 2, Aquatic Acute 1
Formaldoxime	860-22-0			5.4%	Skin Irrit. 2, Eye Irrit. 2, STOT SE 3 (I)

## Section 4. First Aid

### 4.1 Description of first aid measures

Eyes	Irrigate thoroughly with plenty of water for at least 10 minutes, holding the eye open. Unless contact has been slight OBTAIN MEDICAL ATTENTION
Skin	Wash off skin thoroughly with water. If irritation persists or there is any sign of skin damage, seek IMMEDIATE MEDICAL ASSISTANCE
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. OBTAIN MEDICAL ATTENTION.
Personal protection for first aiders	Wear protective gloves / eye protection.

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

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed.

No further relevant information available.

## Section 5. Fire Fighting

### 5.1 Extinguishing media

Extinguishing Media	Consider what other flammable materials are present and act accordingly.
Unsuitable Media	Nothing specified.

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

Hazards	Presents no specific fire danger.
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### 5.3 Advice for firefighters

Advice for firefighters	Consider all other materials in the vicinity.
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## Section 6. Accidental Release Measures

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

Personal Protection	Use approved personal protective equipment. Evacuate area immediately. Do not allow general use of area until it is safe to do so.
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### 6.2 Environmental precautions

Environmental	Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs.
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### 6.3 Methods and material for containment and cleaning up

Major Spillage	Contain and absorb on inert material. Transfer absorbent to salvage container for removal. Wash area down with copious amounts of water.
Minor Spillage	Wash area down with copious amounts of water.

## 6.4 Reference to other sections

See section 8.2 for information on protective equipment and section 13 for information on disposal.

## Section 7. Storage & Handling

### 7.1 Precautions for safe handling

No specific precautions.

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

Well ventilated, cool, dry storage .

### 7.3 Specific end use(s)

See section 1.2.

## Section 8. Workplace Exposure & Personal Protection

### 8.1 Control parameters

Component	CAS No	Concentration	Workplace Exposure Limits			
			Long Term (8hr TWA)		Short Term 15min period	
Hydroxylamine hydrochloride	5470-11-1	5.4%	-	-	-	-
Formaldoxime	860-22-0	5.4%	-	-	-	-

Exposure data source(s) No occupational exposure data currently available.

### 8.2 Exposure controls

Respiratory Protection	Presents no significant inhalation health hazard.
Hand Protection	Use nitrile gloves or PVC gauntlets.
Eye Protection	Use tightly fitting chemical splash proof glasses or goggles.
Skin Protection	If skin contact or contamination of clothing is likely, protective clothing must be worn.
Special Hazards	No special precautions required.

## Section 9. Physical & Chemical Properties

### 9.1 Information on basic physical and chemical properties

Appearance	Clear colourless liquid.
Odour	No specific odour.
pH	Not applicable
Boiling Point	Aqueous solution
Melting Point	Not applicable
Flash Point	Not applicable
Upper Flammable Limit	Not applicable
Lower Flammable Limit	Not applicable
Auto Ignition	Not applicable
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	1.0400
Water Solubility	Completely soluble in water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

<b>10.1</b>	Reactivity	No data available.
<b>10.2</b>	Chemical Stability	Stable under normal conditions
<b>10.3</b>	Possibility of hazardous reactions	No data available.
<b>10.4</b>	Conditions to Avoid	No specific conditions.
<b>10.5</b>	Incompatible Materials	Alkalis.
<b>10.6</b>	Hazardous Decomposition Products	May produce hazardous fumes if involved in a fire.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	There may be irritation & redness.
Skin	The liquid is mildly irritating to the skin. May cause skin sensitisation.
LD50 Skin	Not available
Ingestion	Causes immediate irritation of the mouth, throat and gastro-intestinal tract.
LD50 Oral	Not available
Inhalation	Presents no significant health hazard by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Possible Carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.

## Section 12. Ecological

<b>12.1</b>	Toxicity	Slightly toxic to aquatic species but is unlikely to bioaccumulate.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
<b>12.2</b>	Persistence and degradability	No data available.
<b>12.3</b>	Bioaccumulative potential	No data available.
<b>12.4</b>	Mobility in soil	No data available.
<b>12.5</b>	Results of PBT & vPvB assessment	Assessment not required.
<b>12.6</b>	Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Flush to drain.
Contaminated Packaging	Wash out containers with water. Use a licensed waste disposer.

## Section 14. Transport Information

<b>14.1 UN Number</b>	Non-restricted
<b>14.2 Proper Shipping Name</b>	Non-restricted
<b>14.3 Transport classes</b>	
UN classification	None
Subsidiary hazard(s)	None
Transport category	None
ADR Hazard ID	Non-restricted
Tunnel Restriction Code	Non-restricted
<b>14.4 Packing Group</b>	None
<b>14.5 Environment hazards</b>	See section 12.
<b>14.6 Special precautions for user</b>	No special precautions required.
<b>14.7 Transport in bulk</b>	Not transported in bulk.

## Section 15. Regulatory Information

### 15.1 Safety, health and environment regulations specific for substance/mixture.

#### Classification, Labeling & Packaging of Substances & Mixtures Regulations (1272/2008/CE)

Classification Skin sensitization, category 1; Carcinogenicity, category 2

Signal word Warning

Hazard Pictograms



Hazard Statements H317, H351  
May cause an allergic skin reaction. Suspected of causing cancer.

Precautionary Statements P272, P280, P302+P352, P333+P313, P363  
Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves / protective clothing / eye protection. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or a rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### 15.2 Chemical safety assessment

Assessment not required.

## Section 16. Other Information

The information contained in this document only covers the hazards presented by this material, it DOES NOT constitute a workplace risk assessment. See sections 11 for toxicological information and section 12 for ecological information.

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