

**Section 1. Identification****1.1 Product Identifier** 3632

Product Name	KARL FISCHER VOLUMETRIC COMP. REAGENT-5mg/ml water
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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(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 corrosion/irritation, category 1C	H314: Causes severe skin burns and eye damage.
Serious eye damage/irritation, category 1	H318: Causes serious eye damage.
Reproductive toxicity, category 1B	H360: May damage fertility or the unborn child.
Spec target organ tox - repeat, category 1	H372: Causes damage to organs through prolonged or repeated exposure.

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

Signal word Danger

Hazard Pictograms



Hazard Statements	Causes severe skin burns and eye damage. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.
Precautionary Statements	Do not handle until all safety precautions have been read and understood. Wear protective gloves / protective clothing / eye protection / face protection. Wash thoroughly after handling. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

## Section 3. Composition

### 3.2 Mixtures

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Iodine	7553-56-2	231-442-4		15%	Acute Tox. 4 (D),Acute Tox. 4 (I),STOT SE 3 (I),STOT RE 1,Aquatic Acute 1
Imidazole	288-32-4	206-019-2		<10%	Skin Corr. 1C,Acute Tox. 4 (O),Eye Dam. 1,Repr. 1B

## 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. OBTAIN MEDICAL ATTENTION.
Skin	Wash off skin thoroughly with water. OBTAIN MEDICAL ATTENTION.
Inhalation	Remove from exposure.
Ingestion	Wash out the patients mouth thoroughly with water. Do not induce vomiting. 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	May evolve toxic fumes if involved in a fire.
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### 5.3 Advice for firefighters

Advice for firefighters	Evacuate area immediately. Keep up wind. Avoid exposure to toxic vapours and fumes. Fire-fighters should wear protective clothing and breathing apparatus.
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## Section 6. Accidental Release Measures

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

Personal Protection	Avoid breathing vapour. 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	Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. Keep material out of sewers, storm drains, surface waters and soil.
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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 container for removal.
Minor Spillage	Contain and absorb on inert material. Transfer absorbent to container for removal.

### 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

Avoid contact with skin and eyes. Do not breath dust. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains dust concentrations to a minimum.

### 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		
Iodine	7553-56-2	15%	-	-	0.1 ppm	1.0 mg/m-3
Imidazole	288-32-4	<10%	-	-	-	-

Exposure data source(s) IOELV: Indicative Occupational Exposure Limit Value.

### 8.2 Exposure controls

Respiratory Protection	Use L.E.V. or natural ventilation to maintain vapour concentrations below exposure limits. If not, use a well maintained chemical cartridge respirator, or use self contained breathing apparatus.
Hand Protection	Use 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	Orange-brown to dark orange-brown solution.
Odour	Pungent.
pH	Not applicable
Boiling Point	Not available
Melting Point	Not applicable
Flash Point	93°C (Closed cup)
Upper Flammable Limit	11.6%
Lower Flammable Limit	1.2%
Auto Ignition	190°C
Explosive Properties	No.
Oxidising Properties	No.
Vapour Pressure	Not applicable
Relative Density	Not available
Water Solubility	Immiscible with water.

### 9.2 Other information

No data available.

## Section 10. Stability & Reactivity

10.1	Reactivity	No data available.
10.2	Chemical Stability	Stable under normal conditions
10.3	Possibility of hazardous reactions	No data available.
10.4	Conditions to Avoid	Hot surfaces, naked flames or other sources of ignition.
10.5	Incompatible Materials	Strong oxidising agents.
10.6	Hazardous Decomposition Products	Not determined.

## Section 11. Toxicological Information

### 11.1 Information on toxicological effects

Eyes	Contact with the liquid will cause burns.
Skin	Contact with the liquid will cause burns.
LD50 Skin	Not available
Ingestion	Ingestion will cause causes damage to stomach and intestinal linings.
LD50 Oral	Not available
Inhalation	Harmful by inhalation.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	No information is available.
Mutagenicity	No information is available.
Reproductive Effects	May damage fertility or the unborn child.
Other Information	The vapour can be detected from its smell at 1ppm. This does not, however, act as a reliable warning due to olfactory fatigue.

## Section 12. Ecological

12.1	Toxicity	Moderately toxic to mammals, fish and bacteria.
	LC50 Algal	Not available
	LC50 Crustacea	Not available
	LC50 Fish	Not available
12.2	Persistence and degradability	No data available.
12.3	Bioaccumulative potential	No data available.
12.4	Mobility in soil	No data available.
12.5	Results of PBT & vPvB assessment	Assessment not required.
12.6	Other adverse effects	None known at present.

## Section 13. Disposal Considerations

### 13.1 Waste treatment methods

Disposal Methods	Dispose of in a licensed incinerator for organic solvents. Do not dispose of as domestic waste. Never dispose of into water courses or sewerage systems due to high risk of explosion.
Contaminated Packaging	Wash out containers with water. Use a licensed waste disposer.

## Section 14. Transport Information

14.1 UN Number	1760
14.2 Proper Shipping Name	Corrosive liquid, N.O.S.
14.3 Transport classes	
UN classification	8
Subsidiary hazard(s)	None
Transport category	3
ADR Hazard ID	80
Tunnel Restriction Code	E
14.4 Packing Group	III
14.5 Environment hazards	See section 12.
14.6 Special precautions for user	No special precautions required.
14.7 Transport in bulk	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 corrosion/irritation, category 1C; Serious eye damage/irritation, category 1; Reproductive toxicity, category 1B; Spec target organ tox - repeat, category 1

Signal word Danger

Hazard Pictograms



Hazard Statements H314+H318, H360, H372  
Causes severe skin burns and eye damage. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure.

Precautionary Statements P202, P280, P264, P301+P330+P331, P303+P361+P353, P305+P351+P338  
Do not handle until all safety precautions have been read and understood. Wear protective gloves / protective clothing / eye protection / face protection. Wash thoroughly after handling. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing.

### 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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