

Revision: 2.0
(Replaces revision 1.1 of 16 April 2021)

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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.

1.3 Supplier Vickers Laboratories Ltd



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Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to regulation 1272/2008/EC

Skin corrosion/irritation, category 1B H314: Causes severe skin burns and eye damage.
Reproductive toxicity, category 1B H360: May damage fertility or the unborn child.
Spec target organ tox - single, category 2 H371: May cause damage to organs.

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. May cause damage to lungs. |
| 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 | | 10 -25% | 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 -25% | Skin Corr. 1C,Acute Tox. 4 (O),Eye Dam. 1,Repr. 1B |
| Sulphur Dioxide | 7446-09-5 | 231-195-2 | | 2.5 -10% | Press. Gas (Comp),Skin Corr. 1B,Acute Tox. 3 (I),STOT SE 1 |

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. |
|---------|---|

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. |
|---------------------|--|

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. |
|---------------|--|

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 | 10 -25% | - | - | 0.1 ppm | 1.0 mg/m-3 |
| Imidazole | 288-32-4 | 10 -25% | - | - | - | - |
| Sulphur Dioxide | 7446-09-5 | 2.5 -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

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|------------------|--|
| 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 1B; Reproductive toxicity, category 1B; Spec target organ tox - single, category 2

Signal word Danger

Hazard Pictograms



Hazard Statements H314, H360, H371
Causes severe skin burns and eye damage. May damage fertility or the unborn child. May cause damage to lungs.

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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