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Section 1. Identification

1.1 Product Identifier 1725

Product Name ETHANOL ABSOLUTE A.R. (duty paid)

CAS Number 64-17-5

REACH Registration No 01-2119457610-43-XXXX

Molecular Formula $\text{C}_2\text{H}_5\text{OH}$ = 46.07

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

Flammable liquid, category 2

Serious eye damage/irritation, category 2

H225: Highly flammable liquid and vapour.

H319: Causes serious eye irritation.

2.2 Label elements

Labelling according to regulation 1272/2008/EC

Signal word Danger

Hazard Pictograms



Hazard Statements Highly flammable liquid and vapour. Causes serious eye irritation.

Precautionary Statements Keep away from heat / sparks/open flames/hot surfaces - No smoking. Store in a well ventilated place. Keep container tightly closed. Take precautionary measures against static discharge. Wear protective gloves / protective clothing / eye protection. 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

3.1 Substances

| Component | CAS No. | EEC No. | REACH No. | Conc w/w | CLP Classification (1272/2008/CE) |
|-----------|---------|-----------|-----------------------|----------|-----------------------------------|
| Ethanol | 64-17-5 | 200-578-6 | 01-2119457610-43-XXXX | >99.5% | Flam. Liq. 2, Eye Irrit. 2 |

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. Remove contaminated clothing immediately and wash before re-use. |
| Inhalation | Remove from exposure. Keep warm and at rest. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY. |
| Ingestion | If conscious give plenty of water to drink. Do not induce vomiting. If there is difficulty in breathing give oxygen if available. If breathing stops or shows signs of failing, apply artificial resuscitation. If unconscious place in the recovery position. OBTAIN MEDICAL ATTENTION URGENTLY. |
| 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 | Water spray, alcohol resistant foam, dry powder or carbon dioxide. Use water spray to keep fire exposed containers cool. |
| Unsuitable Media | Do not use water jet. |

5.2 Special hazards arising from the substance or mixture

| | |
|---------|------------------------------------|
| Hazards | Vapour-air mixtures are explosive. |
|---------|------------------------------------|

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

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

| | |
|---------------------|---|
| Personal Protection | Ensure no sources of ignition. 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 | Keep material out of sewers, storm drains, surface waters and soil. Notify the Environmental Agency and local Environmental Health Officer if major spillage occurs. |
|---------------|--|

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 | Contain and absorb on inert material. Transfer absorbent to container for removal. Allow solvent to evaporate in remote area, then dispose of absorbent as solid chemical waste. 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

All transfer systems should be earthed to prevent accumulation of static electricity. Avoid contact with skin and eyes. Do not breath vapours. Do not allow to contaminate clothing.

Ensure Local Exhaust Ventilation maintains vapour concentrations below the recommended limits.

7.2 Conditions for safe storage, including any incompatibilities

Well ventilated, cool, dry storage . Protect from direct sun and store away from sources of ignition. Keep containers closed when not in use. Keep well separated from oxidising agents.

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 | |
| Ethanol | 64-17-5 | >99.5% | 1000.0 ppm | 1920.0 mg/m ³ | - |

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 organic vapour respirator, or use self contained breathing apparatus. |
| Hand Protection | Use solvent resistant gloves. |
| Eye Protection | Use tightly fitting chemical splash proof glasses or goggles. |
| Skin Protection | Avoid contact with skin. 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 | Fresh and characteristic. |
| pH | Not applicable |
| Boiling Point | 78.3°C |
| Melting Point | -112.3°C |
| Flash Point | 13°C (Closed cup) |
| Upper Flammable Limit | 19% |
| Lower Flammable Limit | 3.3% |
| Auto Ignition | 363°C |
| Explosive Properties | Moderate/severe in confined spaces. |
| Oxidising Properties | No. |
| Vapour Pressure | 59mmHg @ 20°C |
| Relative Density | 0.7911 |
| Water Solubility | Completely miscible in 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. Nitric acid. Silver nitrate, potassium perchlorate, chromyl chloride, chromium trioxide and permanganic acid. Peroxides, potassium permanganate, sodium, potassium, platinum, potassium tertiary butoxide. |
| 10.6 | Hazardous Decomposition Products | None unusual. Burning will produce smoke, carbon monoxide and/or carbon dioxide. |

Section 11. Toxicological Information

11.1 Information on toxicological effects

| | |
|----------------------|--|
| Eyes | Causes serious eye irritation. High concentrations of vapour may be irritating to the eyes. |
| Skin | Repeated or prolonged contact may defat the skin producing irritation and dermatitis. Unlikely to be absorbed across the skin in harmful amounts. |
| LD50 Skin | 15,800mg/kg Rabbit |
| Ingestion | Low order of acute toxicity. Fatal dose in man 300-400ml. Ingestion of large amounts will produce central nervous system depression. Symptoms may include nausea, vomiting muscular incoordination and loss of consciousness. Aspiration during swallowing or vomiting may injure lungs. |
| LD50 Oral | 10,470mg/kg Rat |
| Inhalation | Exposure to vapour concentrations above the occupational exposure limits may produce irritation of the eyes and respiratory tract. High concentrations of vapour may produce central nervous system depression and unconsciousness. Symptoms will be similar to those following ingestion. |
| LD50 Inhalation | 30,000mg/l Rat (4 hours) |
| TCLo | Not available |
| Carcinogenicity | Not considered to be a carcinogen. |
| Mutagenicity | Not considered to be a mutagen. |
| Reproductive Effects | Some evidence for foetotoxicity and tetragenicity has been observed in experimental animals treated with high doses of ethanol during gestation. |

Section 12. Ecological

| | | |
|------|----------------------------------|--|
| 12.1 | Toxicity | Readily bio-degraded in the environment. |
| | LC50 Algal | Not available |
| | LC50 Crustacea | 1,2340mg/l Daphnia magna (48 hours) |
| | LC50 Fish | 14,200mg/l Fathead Minnow (96 hours) |
| 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 | Use a licensed waste disposer. Do not attempt to burn any residual liquids due to risk of explosion. |

Section 14. Transport Information

| | |
|-----------------------------------|----------------------------------|
| 14.1 UN Number | 1170 |
| 14.2 Proper Shipping Name | Ethanol |
| 14.3 Transport classes | |
| UN classification | 3 |
| Subsidiary hazard(s) | None |
| Transport category | 2 |
| ADR Hazard ID | 33 |
| Tunnel Restriction Code | D/E |
| 14.4 Packing Group | II |
| 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 Flammable liquid, category 2; Serious eye damage/irritation, category 2

Signal word Danger

Hazard Pictograms



Hazard Statements H225, H319
Highly flammable liquid and vapour. Causes serious eye irritation.

Precautionary Statements P210, P403+P233, P243, P280, P303+P361+P353, P305+P351+P338
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Store in a well ventilated place. Keep container tightly closed. Take precautionary measures against static discharge. Wear protective gloves / protective clothing / eye protection. 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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