

# Trafalgar Chemicals - Safety Data Sheet

**0894-DH**

(in accordance with regulation (EU) 2015/830 and regulation (EC) 1272/2008)

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

Revision date: 06 February 2025  
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## Section 1. Identification

### 1.1 Product Identifier 0894-DH

Product Name ETHANOL : ETHER MIX FOR FFA TITRATION 2.5L.

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 Trafalgar Chemicals



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### 1.4 Emergency Telephone (08:00-17:00) +44(0) 116 2879460 (24hr) 112 (Have this document to hand)

## Section 2. Hazards Identification

### 2.1 Classification of the substance or mixture

#### Classification according to regulation (EC) 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

|                                            |                                              |
|--------------------------------------------|----------------------------------------------|
| Flammable liquid, category 1               | H224: Extremely flammable liquid and vapour. |
| Acute toxicity, category 4 (oral)          | H302: Harmful if swallowed.                  |
| Serious eye damage/irritation, category 2  | H319: Causes serious eye irritation.         |
| Spec target organ tox - single, category 3 | H336: May cause drowsiness or dizziness.     |

### 2.2 Label elements

#### Labelling according to regulation (EC) 1272/2008 as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

Signal word Danger

Hazard Pictograms



|                                      |                                                                                                                                                                                                                                                                                                                                                                                                    |
|--------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Hazard Statements                    | Extremely flammable liquid and vapour. Harmful if swallowed. May cause drowsiness or dizziness. Causes serious eye irritation.                                                                                                                                                                                                                                                                     |
| Precautionary Statements             | Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store in a well ventilated place. Keep container tightly closed. |
| Supplemental Hazard Information (EU) | May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.                                                                                                                                                                                                                                                                                                                |

## Section 3. Composition

### 3.2 Mixtures

| Component     | CAS No. | EC No.    | REACH No.             | Conc w/w | CLP Classification (1272/2008/CE)                                             |
|---------------|---------|-----------|-----------------------|----------|-------------------------------------------------------------------------------|
| Ethanol       | 64-17-5 | 200-578-6 | 01-2119457610-43-XXXX | <50%     | Flam. Liq. 2, Eye Irrit. 2                                                    |
| Diethyl Ether | 60-29-7 | 200-467-2 | 01-2119535785-29-XXXX | <47.5%   | Flam. Liq. 1, Acute Tox. 4 (O), STOT SE 3 (D)                                 |
| Methanol      | 67-56-1 | 200-659-6 | 01-2119433307-44-XXXX | <2.8%    | Flam. Liq. 2, Acute Tox. 3 (O), Acute Tox. 3 (D), 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. 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 | Dry powder, carbon dioxide or vaporising liquids. 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. Vapours may flow along surfaces to distant ignition sources and flash back. |
|---------|----------------------------------------------------------------------------------------------------------------|

### 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. Beware : vapour is heavier than air and will tend to accumulate at low spots.

## 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 | <50%          | 1000.0 ppm                | 1920.0 mg/m-3 | -                       | -            |
| Diethyl Ether | 60-29-7 | <47.5%        | 100.0 ppm                 | 310.0 mg/m-3  | 200.0 ppm               | 620.0 mg/m-3 |
| Methanol      | 67-56-1 | <2.8%         | 200.0 ppm                 | 266.0 mg/m-3  | 250.0 ppm               | 333.0 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 Ethereal.

pH Not applicable

|                       |                    |
|-----------------------|--------------------|
| Boiling Point         | 34.6°C             |
| Melting Point         | -116.2°C           |
| Flash Point           | -40°C (Closed cup) |
| Upper Flammable Limit | 36%                |
| Lower Flammable Limit | 1.9%               |
| Auto Ignition         | 170°C              |
| Explosive Properties  | Not applicable     |
| Oxidising Properties  | Not applicable     |
| Vapour Pressure       | 587hPa @ 20°C      |
| Relative Density      | Not available      |
| Water Solubility      | 1.2%               |

## 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 but may form peroxides on prolonged storage if air is present. |
| 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. Sulphuric acid. Nitric acid.                                         |
| 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                 | Both the vapour and liquid are irritating to the eyes but unlikely to cause serious injury.                                                                                                                                                                                                                                 |
| 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            | Not available                                                                                                                                                                                                                                                                                                               |
| Ingestion            | Ingestion of large amounts will produce symptoms resembling those of alcoholic intoxication ie excitation and irritability. Further exposure will induce confusion, drowsiness, stupor and finally unconsciousness. Aspiration during swallowing or vomiting may injure lungs. Death may follow due to respiratory failure. |
| LD50 Oral            | Not available                                                                                                                                                                                                                                                                                                               |
| Inhalation           | Exposure to vapour concentrations above the occupational exposure limits may produce irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour will will induce confusion, drowsiness, stupor and finally unconsciousness                                                                   |
| LD50 Inhalation      | Not available                                                                                                                                                                                                                                                                                                               |
| TCLo                 | Not available                                                                                                                                                                                                                                                                                                               |
| Carcinogenicity      | Not considered to be a carcinogen.                                                                                                                                                                                                                                                                                          |
| Mutagenicity         | Not considered to be a mutagen.                                                                                                                                                                                                                                                                                             |
| Reproductive Effects | A slight increase in miscarriage rate has been reported in women exposed to solvents.                                                                                                                                                                                                                                       |
| Other Information    | Used medicinally as an inhalation anaesthetic.                                                                                                                                                                                                                                                                              |

## Section 12. Ecological

|      |                               |                                          |
|------|-------------------------------|------------------------------------------|
| 12.1 | Toxicity                      | Readily bio-degraded in the environment. |
|      | 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 | 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                    | 1993                                                        |
| 14.2 | Proper Shipping Name         | Flammable liquid, N.O.S. (Diethyl Ether, Ethanol, Methanol) |
| 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                | I                                                           |
| 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) as amended by GB-CLP Regulation, UK SI 2019/720 & UK SI 2020/1567

Classification Flammable liquid, category 1; Acute toxicity, category 4 (oral); Serious eye damage/irritation, category 2; Spec target organ tox - single, category 3

Signal word Danger

Hazard Pictograms



Hazard Statements H224, H302, H336, H319  
Extremely flammable liquid and vapour. Harmful if swallowed. May cause drowsiness or dizziness. Causes serious eye irritation.

Precautionary Statements P210, P280, P303+P361+P353, P270, P264, P403+P233  
Keep away from heat / sparks/open flames/hot surfaces - No smoking. Wear protective gloves / protective clothing / eye protection. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Store in a well ventilated place. Keep container tightly closed.

Supplemental Hazard Information (EU) EUH019, EUH066  
May form explosive peroxides. Repeated exposure may cause skin dryness or cracking.

## 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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