

Revision: 1.1

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

FO2769

Product Name

FORMIC ACID 85% w/w pure 500ml.

CAS Number

64-18-6

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.

Molecular Formula

 $\text{HCOOH} = 46.03$ **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**

WF Education Group

Phoenix House  
Battlefield Enterprise Park  
Stafford Drive  
Shrewsbury  
Shropshire  
SY1 3FE  
UNITED KINGDOM

Phone

44 01743 812200

Email

sales@wf-education.com

Website

www.timstar.co.uk

**1.4 Emergency Telephone**

(08:30-17:00) +44(0)1743 812200

(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 corrosion/irritation, category 1A

H314: Causes severe skin burns and eye damage.

**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.

Precautionary Statements    Wear protective gloves / protective clothing / eye protection. Do not breathe fume/vapours. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Supplemental Hazard Information (EU)    Corrosive to the respiratory tract.

## Section 3. Composition

### 3.1 Substances

Component	CAS No.	EEC No.	REACH No.	Conc w/w	CLP Classification (1272/2008/CE)
Formic acid	64-18-6	200-579-1	01-2119491174-37-XXXX	85%	Skin Corr. 1A

## 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 URGENTLY.

Skin    Wash off skin thoroughly with water. Remove contaminated clothing immediately and wash before re-use. OBTAIN MEDICAL ATTENTION URGENTLY.

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. If conscious place in a sitting 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. Neutralise spill with soda ash, lime, calcium carbonate or sodium bicarbonate. Wash to drain 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

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.

### 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		
Formic acid	64-18-6	85%	5.0 ppm	9.6 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 PVC gauntlets.

Eye Protection Use chemical full face shield.

Skin Protection Wear PVC oversuit.

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 Pungent and intensely irritating.

pH Not applicable

Boiling Point 100.8°C

Melting Point -18°C

Flash Point 69°C (Closed cup)

Upper Flammable Limit 38%

Lower Flammable Limit 12%

Auto Ignition 540°C

Explosive Properties Slight.

Oxidising Properties No.

Vapour Pressure 40mmHg @ 20°C

Relative Density	1.1900
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	Alkalis. Strong oxidising agents. Mineral acids.
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	The vapour is irritating to the eyes. The liquid and solutions will cause severe burns. Damage can range from severe irritation and corneal scarring to permanent blindness.
Skin	The liquid and solutions will cause severe burns. Repeated exposure may cause dermatitis.
LD50 Skin	Not available
Ingestion	Harmful if swallowed. Causes severe corrosion of the mouth, throat and gastro-intestinal tract.
LD50 Oral	1210mg/kg Rat
Inhalation	Toxic if inhaled. Exposure to vapour concentrations above the occupational exposure limits will produce severe irritation of the eyes, nose, throat and respiratory tract. High concentrations of vapour may seriously damage the membranes lining the nose, throat and upper respiratory tract.
LD50 Inhalation	Not available
TCLo	Not available
Carcinogenicity	Not considered to be a carcinogen.
Mutagenicity	Not considered to be a mutagen.
Reproductive Effects	None identified.
Other Information	The irritant effect provides warning that control of exposure is needed.

## Section 12. Ecological

12.1 Toxicity	Readily biodegradable in both salt and fresh water, BOD5 =40-51% of ThOD. Practically non-toxic to aquatic species: LC50, 24hr, bluegills 175 mg/l; EC50 48hr, Daphnia 120 mg/l; EC50, 96 hr Algae 25 mg/l.
LC50 Algal	See results above.
LC50 Crustacea	See results above.
LC50 Fish	See results above.
12.2 Persistence and degradability	See results above.
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. Do not dispose of as domestic waste.
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	1779
14.2 Proper Shipping Name	Formic acid
14.3 Transport classes	
UN classification	8
Subsidiary hazard(s)	3
Transport category	2
ADR Hazard ID	80
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 Skin corrosion/irritation, category 1A

Signal word Danger

Hazard Pictograms



Hazard Statements H314  
Causes severe skin burns and eye damage.

Precautionary Statements P280, P260, P303+P361+P353, P304+P340, P305+P351+P338, P301+P330+P331  
Wear protective gloves / protective clothing / eye protection. Do not breathe fume/vapours. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do and continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Supplemental Hazard Information (EU) EUH071  
Corrosive to the respiratory tract.

### 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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