

# Kusuri Products Limited

www.kusuri.co.uk

## SAFETY DATA SHEET

FORMALIN 30%



Compilation date: 27/07/2017

Revision No: 3

### Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1 Product identifier

**Product name:** FORMALIN 30% 250ml, 500ml, 1 ltr.

**CAS number:** See section 3.2

**Product code:** FOR1/FOR2/FOR3

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

**Recommended use:** Aquatic fish medication for Koi Carp

**Not recommended:** For any other species

#### 1.3. Details of the supplier of the safety data sheet

**Company name:** Kusuri Products Limited  
12 Wentworth Road  
Heathfield Industrial Estate  
Newton Abbot  
Devon  
TQ12 6TL  
United Kingdom

**Tel:** +44 (0)1626 836600

**Fax:** +44 (0)1626 836700

**Email:** [kay@kusuri.co.uk](mailto:kay@kusuri.co.uk) QM

#### 1.4. Emergency telephone number

**Emergency Tel:** +44 (0)1626 836600

### Section 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification under CLP:** Acute Tox.4: H301, H311, H331; Skin corr.1B: H314 Skin sens.1: H317; H318; STOT SE Cat. H335; H341; Carc.Cat.1: H350; STOT SE Cat. 2: H371.

**Most important adverse effects:** Harmful if swallowed. Causes serious eye damage. Suspected of damage the unborn child. Very toxic to aquatic life with long lasting effects.

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### 2.2. Label elements

**Hazard statements:** H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.H311: Toxic in contact with skin.  
H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.  
H335: May cause respiratory irritation.  
H341: Suspected of causing genetic defects.  
H350: May cause cancer.  
H371: May cause damage to organs.

**Signal words:** DANGER

**Hazard pictograms:** GHS05: Corrosion  
GHS06: Toxic  
GHS08: Health hazard



Contains Formaldehyde and Methanol

**Precautionary statements:** P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P260: Do not breathe vapour/spray.  
P261: Avoid breathing vapour/spray.  
P264: Wash contaminated skin thoroughly after handling.  
P270: Do not eat, drink or smoke when using this product.  
P271: Use only outdoors or in a well-ventilated area.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310 IF SWALLOWED: Immediately call a POISON CENTRE/doctor.  
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water shower.  
P304+P340+P338 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P308+P331: IF exposed or concerned: Call a POISON CENTRE or doctor.

P308+P313: If exposed or concerned: Get medical attention.

P331: Call a POISON CENTRE/doctor.

P312: Call a POISON CENTRE/doctor if you feel unwell.

P321: Specific treatment (see medical advice on this label).

P333+P313: If skin irritation or rash occurs: Get medical attention.

P361+P364: Take off immediately all contaminated clothing and wash it before reuse.

P363: Wash contaminated clothing before reuse.

P403+P233: Store in a well ventilated place. Keep container tightly closed.

P405: Store locked up.

P501: Dispose of contents/container in accordance with national regulations.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.1. Substances

**Chemical identity:** FORMALDEHYDE and METHANOL 30% mixture.

### 3.2. Mixtures

**Hazardous component(s):** Under CLP EC1272/2009

Ingredient	CAS Number/ EC Number	REACH Registration Number	%	CLP Hazard Category	H-Statements
Formaldehyde	50-00-0/200-001-8	01-2119488953-20-0009	30 - 50	Acute Toxicity Category 3	H301+H311
				Acute Toxicity Category 2	H331
				Skin Corrosive Category 1B	H314
				STOT SE Category 3	H335
				Eye damage Category 1	H318
				Skin Sensitizer Category 1A	H317
				Mutation Category 2	H341

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Formaldehyde Continued:				Carcinogenicity Category 1	H350
Methanol*	67-56-1/200-659-6	01-2119433307-44-0017	3 -<10	Flammable Liquid Category 2 Acute Toxicity Category 3 Category 1	H225  H301+H311+H331 H370

\*Subject to EU exposure limit – See section 8.

For full wording of H- statements see Section 2.

#### Section 4: First aid measures

##### 4.1. Description of first aid measures

- Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is on skin. Consult a doctor.
- Eye contact:** Bathe the eye with running water for 15 minutes. If irritation persists or develops consult a doctor.
- Ingestion:** Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water to drink immediately. Consult a doctor.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so in to fresh air, allow to rest and keep warm. If not breathing give artificial respiration. Consult a doctor.
- Personal precautions:** Ensure that those giving first aid treatment do not get contaminated by product spills, etc. Wear suitable clothing, gloves and eye protection. See also section 8 for details.

##### 4.2. Most important symptoms and effects, both acute and delayed

- Skin contact:** There may be irritation and redness at the site of contact. May cause dermatitis reaction. Can cause skin burns.
- Eye contact:** Can cause severe eye irritation and redness with permanent damage.
- Ingestion:** Can cause burns to the mouth and throat.
- Inhalation:** Can cause burns to the gastrointestinal tract and severe irritation of the respiratory tract.
- Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.
- Chronic Potential Health Effects:** Classified as a Category 1 carcinogen under CLP in the EU, mainly on grounds of inhalation experiments in animals.

##### 4.3. Indication of any immediate medical attention and special treatment needed

- Immediate / special treatment:** Obtain medical attention if inhaled, ingested or in case of skin or eye contact.

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### Section 5: Fire-fighting measures

#### 5.1. Extinguishing media

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

#### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** In combustion emits toxic fumes.

#### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

### Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Observe warning labels on the container.

#### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. In case of a large spill, inform local police, local authority, water company, National Rivers Authority and/or fire brigade as appropriate.

#### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Contain any spilled material immediately with a dry agent (e.g. sand, earth, vermiculite, etc.), neutralise to hexamine if necessary with 5% ammonia and vacuum or shovel carefully in to a closable, labelled salvage container for disposal by an appropriate method. (See section 13).

#### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS for protective clothing details. See Section 13 for details of disposal.

### Section 7: Handling and storage

#### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Do not ingest or breathe vapours. Use personal protective equipment (See Section 8). Take precautionary measures against static discharges. Vapours may form explosive mixture with air. Keep away from sources of ignition – NO smoking.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area between 2°C and 30°C. Keep in original container and tightly closed. The floor of the storage room must be impermeable to prevent the escape of liquids and well ventilated. Avoid naked flames

and other sources of ignition.

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#### 7.3. Specific end use(s)

**Specific end use(s):** Aquatic fish medication for Koi Carp.

**Caution:** Do not exceed the recommended dosage on label.  
Overdosing will cause fish fatalities.

## Section 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Occupational Exposure levels in mg/m<sup>3</sup>:** N/A

**Formaldehyde:** 8h – TWA    Short-term    Reference  
2.5                      2.5 (15 min)    UK (MEL), Ireland

**Methanol:** 8h – TWA    Short-term    Reference  
266                      333 (15 min)    UK (WEL), Ireland, EU (IOELV)

**Monitoring procedures:** None specified.

**DNEL/PNEC Values:** Not currently available.

#### 8.2. Exposure controls

**Engineering measures:** Good ventilation. Arrange for eye wash possibility.

**Respiratory protection:** Full face respirator EN 141 (EU)

**Hand protection:** Protective Nitrile or Latex rubber gloves. EN 374 (EU)

**Eye protection:** Safety glasses. Ensure eye bath is to hand. (EN 166)

**Skin protection:** Protective clothing. EN 14605 (EU)

## Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Clear

**Melting point/range °C:** -15 approx.

**Boiling point range °C:** 96 – 101  
63 - 75

**Flash point °C:**

**Evaporation rate:** Not determined

**Flammability:** Combustible liquid and vapour

**Explosive properties/limits:** Upper limit in air = 73% for formaldehyde gas  
Lower limit in air = 7% for formaldehyde gas  
Upper limit in air = 37% for methanol  
Lower limit in air = 6% for methanol

**Vapour pressure (mm Hg at 35°C):** 4.2 (Formaldehyde Partial Pressure)

**Vapour density:** Not determined

Density at 20°C: 1080 – 1160

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**Solubility in water (% by weight):** Miscible in all proportions  
**Solubility in solvents:** Soluble in ethanol, low in fatty type solvents  
**Partition coefficient (log K<sub>ow</sub>):** 0.35 for formaldehyde gas  
-0.77 for methanol  
**Auto-ignition temperature (°C):** 300  
**Decomposition temperature (°C):** 400  
**Viscosity (mPa.s at 20°C):** 1.0  
**Oxidising properties:** None

### 9.2. Other information

**Other information:** These are typical values and do not constitute a specification.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under normal conditions of use and storage, but may polymerise at temperatures above 60°C.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Reacts with strong oxidising agents. Vapour may react with hydrochloric acid to form bis-chloromethyl ether, a potent human carcinogen.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat and Frost. Store in cool, well ventilated area between 2°C and 30°C. Avoid naked flames and other sources of ignition. (Evolves flammable gas at elevated temperatures).

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. The solution may become discoloured on contact with metals and alloys containing zinc, iron, copper and nickel, which may become corroded.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** Formaldehyde (forms explosive mixture with air) may be evolved on heating, and carbon dioxides may be released on burning or heating to decomposition.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

Relevant hazards for substance:

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Hazard	Route	Basis
Acute toxicity (ac. Tox. 4) Formaldehyde	LD <sub>50</sub> (oral, rat) LD <sub>50</sub> (dermal, rabbit) LD <sub>50</sub> (inhalation, rat) Toxic if swallowed, in contact with skin or if inhaled. Can cause burns to throat, nose and gastrointestinal tract and severe irritation of the respiratory tract.	Based on test data 100mg/kg 300mg/kg 463 gases ppm
Hazard	Route	Basis
Acute toxicity (ac. Tox. 4) Methanol	LD <sub>50</sub> (oral, rat) >1187 – 2769 mg/kg LDLo (oral, human) Readily absorbed by the gastrointestinal tract. LD <sub>50</sub> (dermal, rabbit) Approx. 17100 mg/kg Readily absorbed through the skin. LD <sub>50</sub> (inhalation, rat) TCLo (inhalation, human) Readily absorbed by inhalation.	Based on test data 100.0 mg/kg 143 mg/kg 300 mg/kg 128.2 mg/l/4 hour 700.0 gases ppm 300 ppm
Skin corrosion/irritation	Product can cause skin burns.	Based on test data
Serious eye damage/irritation	Product can cause severe eye irritation with permanent damage.	Based on test data
Respiratory or skin sensitisation	Products may cause allergic contact dermatitis reaction by skin contact (type IV immune reaction, acute and chronic skin sensitisation). Persons sensitised to formaldehyde should not handle this product.	Based on test data
Germ cell mutagenicity	Reason for no classification: conclusive evidence but not sufficient for classification.	Based on test data
Carcinogenicity	<b>IARC carcinogenicity</b> IARC Group 1 Carcinogenic to humans. <b>NTP carcinogenicity</b> Known human carcinogen.	Based on test data



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Reproductive toxicity	Reason for no classification: Conclusive but not sufficient for classification.	Based on test data
STOT single exposure	May cause respiratory irritation. Methanol causes damage to organs, can cause blindness.	Based on test data
STOT repeated exposure	Reason for no classification: Conclusive but not sufficient for classification.	Based on test data
Aspiration	Reason for no classification: Conclusive but not sufficient for classification.	Based on test data

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact. May cause allergic contact dermatitis and burns.

**Eye contact:** There may be severe eye irritation and redness. The eyes may water profusely. Can cause permanent damage.

**Ingestion:** There may be burns, soreness and redness of the mouth and throat. Can cause burns and permanent damage to gastrointestinal tract.

**Inhalation:** There may be severe irritation and burns to the throat, nose and respiratory tract.

**Delayed / immediate effects:** Immediate effects can be expected after short-term and long-term exposure. Product classified as a Category 2 carcinogen under CLP in the EU, mainly on the grounds of inhalation experiments in animals.

**Other information:** None

## Section 12: Ecological information

### 12.1. Toxicity

#### Data for active ingredients formaldehyde:

LC <sub>50</sub> , Pimephales promelas, 96hr (mg/l)	24
LC <sub>50</sub> , Brachydanio rerio, 96hr (mg/l)	41
EC <sub>50</sub> , Daphnia magna, 48hr (mg/l)	Approx. 2
EC <sub>50</sub> , Daphnia magna, 24hr (mg/l)	42
Bacterial toxicity: EC <sub>50</sub> Photobacterium phosphoreum, 30min (mg/l)	8.5
Activated sludge: EC <sub>20</sub> Pseudomonas putida, 5hr (mg/l)	>1,995

**NB:** Formaldehyde exhibits a toxic effect on aquatic organisms, but is not officially classified as such. Not acutely toxic to vertebrate animals, but exerts activity against invertebrates, e.g. bacteria. Sludge decomposition can be impaired, but the inhibition of the degradation activity of activated sludge is not anticipated

when introduced to biological treatment plants in appropriate low concentrations. DO NOT OVERDOSE.

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#### 12.2. Persistence and degradability

**Persistence and degradability:** Readily biodegradable.

#### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** Not bio-accumulative.

**Partition coefficient (log  $K_{ow}$ ):** 0.35, for formaldehyde gas  
-0.77, for methanol

#### 12.4. Mobility in soil

Adsorption to solid soil phase is not expected.  
Formaldehyde will not evaporate into the atmosphere from water surfaces.

#### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT or vPvB substance.

#### 12.6. Other adverse effects

**Formaldehyde:** Classified as WGK = 2, water polluting, (Kenn Nr. 112) by the German Water Pollution Commission.

**Methanol:** Classified as WGK = 1, water polluting, (Kenn Nr. 145) by the German Water Pollution Commission

### Section 13: Disposal considerations

#### 13.1. Waste treatment methods

**Disposal operations:** Users should acquaint themselves with the local waste disposal regulations. This product comes under European Waste Codes H6, H8 and H11, therefore, waste is considered 'Hazardous waste' if it contains  $\geq 1\%$  product; European Waste Catalogue Index No. 07 01 99, if not mixed with other waste.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

**Disposal of packaging:** Contaminated packing should be disposed of as Hazardous Waste, as above, according to local authority guidelines.

### Section 14: Transport information

#### 14.1. UN number

**UN number:** UN2209

#### 14.2. UN proper shipping name

**Shipping name:** FORMALDEHYDE SOLUTION

#### 14.3. Transport hazard class(es)

**Transport class:** 8 Corrosive

#### 14.4. Packing group

**Packing group:** III

#### 14.5. Environmental hazards

**Environmentally hazardous:** None

**Marine pollutant:** None

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### 14.6. Special precautions for user

**Special precautions:** See P Statements in Section 2  
**Tunnel code:** E  
**Transport category:** 2

## Section 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

**Manufacturers VMD licence No:** SAM0002 under VMD regulations.  
**COSHH:** Control of Substances Hazardous to Health (COSHH) Regulations 2002  
**HSE:** Health and Safety at Work Act 1974.  
H.S.E. Guidance Note EH40 (Occupational Exposure Limits).  
Manual Handling Operations Regulations 1992  
**EU legislation:** Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).  
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).  
Commission Decision 2000/532/EC as amended by Decision 2001/118/EC establishing a list of wastes and hazardous waste pursuant to Council Directive 75/442/EEC on waste and Directive 91/689/EEC on hazardous waste with amendments.

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.  
**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.  
**Abbreviations and acronyms:** *LD<sub>50</sub>: Lethal dose, 50 percent*  
*LDLo: Lethal dose low*  
*LClo: Lethal concentration low*  
*EC<sub>50</sub>: Effective concentration, 50 percent*  
*EC<sub>20</sub>: Effective concentration, 20 percent*