

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

### 1.1. Product identifier

**Product name:** FORMALDEHYDE 40% SOLUTION  
**CAS number:** 50-00-0  
**EINECS number:** 200-001-8  
**Index number:** 605-001-00-5  
**Product code:** B8F77119  
**Synonyms:** FORMALIN

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

**Use of substance / mixture:** PC21: Laboratory chemicals. ERC1: Manufacture of substances

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

**Company name:** PHILIP HARRIS  
2 Gregory Street  
Hyde  
Cheshire  
SK14 4HR  
United Kingdom  
**Tel:** +44 (0)845 1200 506  
**Fax:** +44 (0)161 367 2140  
**Email:** [enquiries@philipharris.co.uk](mailto:enquiries@philipharris.co.uk)

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 845 1200 506

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CLP:** Acute Tox. 3: H301+311+331; STOT SE 1: H370; Carc. 1B: H350; Muta. 2: H341; Skin Corr. 1B: H314; Skin Sens. 1: H317

**Most important adverse effects:** Toxic if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Suspected of causing genetic defects. May cause cancer. Causes damage to organs .

### 2.2. Label elements

**Label elements:**  
**Hazard statements:** H301+311+331: Toxic if swallowed, in contact with skin or if inhaled.  
H314: Causes severe skin burns and eye damage.  
H317: May cause an allergic skin reaction.

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H341: Suspected of causing genetic defects.

H350: May cause cancer.

H370: Causes damage to organs .

**Signal words:** Danger

**Hazard pictograms:** GHS05: Corrosion

GHS06: Skull and crossbones

GHS08: Health hazard



**Precautionary statements:** P260: Do not breathe dust/fumes/gas/mist/vapours/spray.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+310: IF SWALLOWED: Immediately call a POISON CENTER/doctor/.

P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302+350: IF ON SKIN: Gently wash with plenty of soap and water.

P302+352: IF ON SKIN: Wash with plenty of water/.

**2.3. Other hazards**

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

**Section 3: Composition/information on ingredients**

**3.2. Mixtures**

**Hazardous ingredients:**

FORMALDEHYDE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
200-001-8	50-00-0	-	Carc. 1B: H350; Muta. 2: H341; Acute Tox. 3: H301; Acute Tox. 3: H311; Acute Tox. 3: H331; Skin Corr. 1B: H314; Skin Sens. 1: H317	30-50%

METHANOL - REACH registered number(s): 01-2119433307-44-XXXX

200-659-6	67-56-1	-	Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT SE 1: H370	10-30%
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**Non-classified ingredients:**

WATER

EINECS	CAS	CHIP Classification	CLP Classification	Percent
-	7732-18-5	-	-	30-50%

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**Contains:** <1% SODIUM CHLORIDE

**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. Wash immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Do not induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a doctor.

**Inhalation:** Move to fresh air in case of accidental inhalation of vapours. If breathing is irregular or stopped, administer artificial respiration. Consult a doctor.

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

**Skin contact:** Causes burns

**Eye contact:** Corrosive

**Inhalation:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

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

**Immediate / special treatment:** No data available.

**Section 5: Fire-fighting measures**

**5.1. Extinguishing media**

**Extinguishing media:** CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

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

**Exposure hazards:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

**5.3. Advice for fire-fighters**

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

**Section 6: Accidental release measures**

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

**Personal precautions:** Use personal protection equipment. Do not breathe vapours, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures.

**6.2. Environmental precautions**

**Environmental precautions:** Prevent further leakage or spillage if safe to do so. Do not discharge into drains or rivers. Discharge into the environment must be avoided.

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

**Clean-up procedures:** Contain spillage, and then collect with an electronically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

**6.4. Reference to other sections**

**Reference to other sections:** Refer to section 13 of SDS.

**Section 7: Handling and storage**

**7.1. Precautions for safe handling**

**Handling requirements:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

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

**Storage conditions:** Keep containers tightly sealed. Store in cool, Dry place in tightly closed containers. Ensure good ventilation/exhaustion at the work place. Air and moisture sensitive. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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

**Specific end use(s):** Apart from uses mentioned in section 1.2 no other specific uses are stipulated.

**Section 8: Exposure controls/personal protection**

**8.1. Control parameters**

**Hazardous ingredients:**

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**Workplace exposure limits:**

**Respirable dust**

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	2.5 mg/m <sup>3</sup>	2.5 mg/m <sup>3</sup>	-	-

**METHANOL**

UK	266 mg/m <sup>3</sup>	333 mg/m <sup>3</sup>	-	-
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**DNEL/PNEC Values**

**DNEL / PNEC** No data available.

**8.2. Exposure controls**

**Engineering measures:** Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

**Respiratory protection:** Where risk assessment shows air-purifying respirators are appropriate use a full face respirator with multi purpose combination (US) or type AXBEK (EN14387 respirator cartridges as a back up to engineering controls. If the respirator is the sole means of protection use a full face supplied air respirator. Use respirators and components

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tested & approved under appropriate government standards eg CEN (EU) or NIOSH (US).

**Hand protection:** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching the gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use.

Wash and dry hands. Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M) Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

**Eye protection:** Face shield and safety glasses. Use equipment for eye protection test and approved under appropriate government statements such as NIOSH (US) or EN 166(EU)

**Skin protection:** Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Environmental:** Prevent further leakage or spillage if safe to do so. Prevent from entering in public sewers or the immediate environment.

**Section 9: Physical and chemical properties**

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

**State:** Liquid

**Colour:** Colourless

**Odour:** No data available

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** No data available.

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Flammability limits %: lower:** 7

**Flash point°C:** 64

**Autoflammability°C:** No data available.

**Relative density:** 1.016 g/cm<sup>3</sup> @20°C

**VOC g/l:** No data available.

**Melting point/range°C:** No data available.

**upper:** 73

**Part. coeff. n-octanol/water:** No data available.

**Vapour pressure:** 69hPa @ 37°C

**pH:** No data available.

**9.2. Other information**

**Other information:** No data available.

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**Section 10: Stability and reactivity**

**10.1. Reactivity**

**Reactivity:** No data available.

**10.2. Chemical stability**

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

**10.3. Possibility of hazardous reactions**

**Hazardous reactions:** No data available.

**10.4. Conditions to avoid**

**Conditions to avoid:** Heat. Flames. Sparks

**10.5. Incompatible materials**

**Materials to avoid:** No data available.

**10.6. Hazardous decomposition products**

**Haz. decomp. products:** Other decomposition products - No data available.

**Section 11: Toxicological information**

**11.1. Information on toxicological effects**

**Toxicity values:**

Route	Species	Test	Value	Units
ORL	MUS	LD50	1	gm/kg
ORL	RAT	LD50	1200	mg/kg
SCU	RAT	LD50	300	mg/kg

**Hazardous ingredients:**

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ORL	MUS	LD50	42	mg/kg
ORL	RAT	LD50	100	mg/kg
SCU	RAT	LD50	420	mg/kg

**METHANOL**

IVN	RAT	LD50	2131	mg/kg
ORL	MUS	LD50	7300	mg/kg
ORL	RAT	LD50	5628	mg/kg

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**Relevant hazards for substance:**

Hazard	Route	Basis
Acute toxicity (ac. tox. 3)	INH DRM ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
Germ cell mutagenicity	--	Hazardous: calculated
Carcinogenicity	--	Hazardous: calculated
STOT-single exposure	-	Hazardous: calculated

**Symptoms / routes of exposure**

**Skin contact:** Causes burns

**Eye contact:** Corrosive

**Inhalation:** Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals.

**Section 12: Ecological information**

**12.1. Toxicity**

**Ecotoxicity values:** No data available.

**12.2. Persistence and degradability**

**Persistence and degradability:** Readily biodegradable.

**12.3. Bioaccumulative potential**

**Bioaccumulative potential:** No data available.

**12.4. Mobility in soil**

**Mobility:** No data available.

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

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

**12.6. Other adverse effects**

**Other adverse effects:** Very toxic to aquatic organisms. Discharge into the environment must be avoided.

**Section 13: Disposal considerations**

**13.1. Waste treatment methods**

**Disposal operations:** Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company.

**Disposal of packaging:** Dispose of as unused product.

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

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**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

**14.4. Packing group**

Packing group: III

**14.5. Environmental hazards**

Environmentally hazardous: No

Marine pollutant: No

**14.6. Special precautions for user**

Tunnel code: E

Transport category: 3

**Section 15: Regulatory information**

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

**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.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** H225: Highly flammable liquid and vapour.

H301: Toxic if swallowed.

H301+311+331: 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.

H331: Toxic if inhaled.

H341: Suspected of causing genetic defects <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H350: May cause cancer <state route of exposure if it is conclusively proven that no other

[cont...]



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routes of exposure cause the hazard>.

H370: Causes damage to organs <or state all organs affected, if known> <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

**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.