



SAFETY DATA SHEET

ZINFOS 340WS, SPRAYING (General colours)

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name ZINFOS 340WS, SPRAYING (General colours)
Product number ZS/GENERAL

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

Identified uses An air-drying, liquid, solvent-borne paint for consumer, professional and industrial use. Used as a paint for interior/exterior building trim, for articles inside or outside buildings - but which are out of scope of the VOC Product Directive, and for metal finishing Apply by brush, roller or manual spray. This product may be force dried (50-100°C).

1.3. Details of the supplier of the safety data sheet

Supplier Manor Coating Systems Ltd
 Otley Road
 Shipley
 West Yorkshire
 BD17 7DP

 Tel: 01274 587351
 Fax: 01274531360
 chiefchemist@manorcoatingsystems.co.uk

Contact person Chief Chemist

1.4. Emergency telephone number

Emergency telephone Manor Coating Systems Ltd. 01274 587351 may be contacted (Office hours only)

National emergency telephone number Members of the public should contact:
 In England and Wales: NHS Direct 0845 4647 or 111
 In Scotland: NHS24 08454 24 24 24
 In Republic of Ireland: 01 809 2166

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification


Physical hazards Flam. Liq. 3 - H226

Health hazards Elicitation (Skin Sens.) STOT SE 3 - H336

Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) R10,R66,R67.

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Human health	Spray mists irritate the respiratory system, and cause coughing and difficulties in breathing. Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, skin cracking and oil acne.
Physicochemical	The product is flammable and may form explosive vapours/mixtures with air during use.
2.2. Label elements	
Pictogram	
	
Signal word	Warning
Hazard statements	<p>EUH208 Contains BUTANONEOXIME. May produce an allergic reaction.</p> <p>H336 May cause drowsiness or dizziness.</p> <p>H226 Flammable liquid and vapour.</p>
Precautionary statements	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P261 Avoid breathing vapour/spray.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P302 IF ON SKIN: Wash with plenty of soap and water. Do not use solvent thinners or white spirit.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p>
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics, 1-METHOXY-2-PROPANOL
Supplementary precautionary statements	<p>P240 Ground/bond container and receiving equipment.</p> <p>P241 Use explosion-proof electrical equipment.</p> <p>P242 Use only non-sparking tools.</p> <p>P243 Take precautionary measures against static discharge.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

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HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics	30-60%
CAS number: 64742-48-9	EC number: 919-857-5
	REACH registration number: 01-2119463258-33-0000
Classification Flam. Liq. 3 - H226 STOT SE 3 - H336 Asp. Tox. 1 - H304	Classification (67/548/EEC or 1999/45/EC) Xn;R65. R10,R66,R67.
1-METHOXY-2-PROPANOL	1-5%
CAS number: 107-98-2	EC number: 203-539-1
	REACH registration number: 01-2119457435-35-0000
Classification Flam. Liq. 3 - H226 STOT SE 3 - H336	Classification (67/548/EEC or 1999/45/EC) R10 R67
99422018	1-5%
CAS number: —	EC number: 907-495-0
	REACH registration number: 01-2119545465-35-0000
Classification Aquatic Chronic 3 - H412	Classification (67/548/EEC or 1999/45/EC) R52.
BUTANONEOXIME	0.1 - <1%
CAS number: 96-29-7	EC number: 202-496-6
	REACH registration number: 01-2119539477-28-0000
Classification Eye Dam. 1 - H318 Skin Sens. 1 - H317 Carc. 2 - H351 Acute Tox. 4 - H312	Classification (67/548/EEC or 1999/45/EC) Carc. Cat. 3;R40 Xn;R21 R43 Xi;R41

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments The data shown are in accordance with the latest EC Directives.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If unconscious place in recovery position and seek medical advice.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, administer artificial respiration.
Ingestion	If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

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Skin contact	Remove contaminated clothing. Wash skin thoroughly with soap and water or use recognised skin cleanser. Do NOT use solvents or thinners.
Eye contact	Remove contact lenses, irrigate copiously with clean, fresh water, holding the eyelids apart for at least 10 minutes and seek immediate medical advice.

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

Inhalation	In case of overexposure, organic solvents may depress the central nervous system causing dizziness and intoxication, and at very high concentrations unconsciousness and death.
Ingestion	Ingestion may cause nausea, diarrhoea and vomiting.
Skin contact	Prolonged or repeated contact with skin may cause soreness, irritation or dry skin due to a defatting action.
Eye contact	The liquid splashed in the eyes may cause irritation and reversible damage.

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

Notes for the doctor	See above.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	recommended: alcohol resistant foam, CO ₂ , powders, water spray/mist
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards	Fire will produce dense black smoke. Exposure to decomposition products may cause a health hazard. Appropriate breathing apparatus may be required.
Hazardous combustion products	Protection against nuisance dust must be used when the airborne concentration exceeds 10 mg/m ³ . Oxides of carbon. Oxides of nitrogen.

5.3. Advice for firefighters

Protective actions during firefighting	Cool closed containers exposed to fire with water. Do not allow run-off from fire fighting to enter drains or water courses.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	Exclude sources of ignition and ventilate the area. Avoid breathing vapours. Refer to protective measures listed in sections 7 and 8.
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6.2. Environmental precautions

Environmental precautions	Do not allow to enter drains or watercourses. If the product contaminates lakes, rivers or sewage, inform appropriate authorities in accordance with local regulations.
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6.3. Methods and material for containment and cleaning up

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Methods for cleaning up Contain and collect spillage with non-combustible absorbent materials, e.g. sand, earth, vermiculite, diatomaceous earth and place in container for disposal according to local regulations (see section 13).
Clean preferably with a detergent - avoid use of solvents.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. For waste disposal, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions

The Manual Handling Operations Regulations may apply to the handling of containers of this product. To assist employers, the following method of calculating the weight for any pack size is given. Take the pack size volume in litres and multiply this figure by the specific gravity value given in Section 9. This will give the net weight of the coating in kilograms. Allowance will then have to be made for the immediate packaging to give an approximate gross weight. Prevent the creation of flammable or explosive concentrations of vapour in air and avoid vapour concentration higher than the occupational exposure limits.

In addition, the product should only be used in areas from which all naked lights and other sources of ignition have been excluded.

Electrical equipment should be protected to the appropriate standard.

Mixture may charge electrostatically: always use earthing leads when transferring from one container to another.

Operators should wear anti-static footwear and clothing and floors should be of the conducting type.

Isolate from sources of heat, sparks and open flame.

Non-sparking tools should be used.

Avoid skin and eye contact.

Avoid the inhalation of dust, particulates and spray mist arising from the application of this mixture.

Avoid inhalation of dust from sanding.

Smoking, eating and drinking should be prohibited in application area.

For personal protection see Section 8.

Never use pressure to empty: container is not a pressure vessel.

Always keep in containers of same material as the original one.

Comply with the health and safety at work laws.

Do not allow to enter drains or water courses. Wash hands before eating and before leaving the site.

Remove contaminated clothing and protective equipment before entering eating areas.

Information on fire and explosion protection.

Vapours are heavier than air and may spread along floors.

Vapours may form explosive mixtures with air. Materials such as cleaning rags, paper wipes and protective clothing, which are contaminated with the product may spontaneously self-ignite some hours later. To avoid the risks of fires, all contaminated materials, preferably soaked with water, should be stored in purpose-built containers or in metal containers with tight-fitting self-closing lids.

Contaminated materials should be removed from the workplace at the end of each working day and be stored outside.

7.2. Conditions for safe storage, including any incompatibilities

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Storage precautions

Store in accordance with the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). The requirements are given in the HSE Approved Code of Practice and Guidance, Storage of Dangerous Substances: DSEAR.

The principles contained in the HSE guidance note Chemical Warehousing: The Storage of Packaged Dangerous Substances, should be observed when storing this product. Notes on joint storage.

Store away from oxidising agents, from strongly alkaline and strongly acid materials as well of amines, alcohols and water. Additional information on storage conditions

Observe label precautions.

Store between 5 and 25 °C in a dry, well ventilated place away from sources of heat and direct sunlight.

Keep container tightly closed.

Keep away from sources of ignition.

No smoking.

Prevent unauthorised access.

Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics

Long-term exposure limit (8-hour TWA): SUP 1000 mg/m³

1-METHOXY-2-PROPANOL

Long-term exposure limit (8-hour TWA): WEL 100 ppm(Sk) 375 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 150 ppm(Sk) 560 mg/m³(Sk)

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Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ resp.dust

BUTANONEOXIME

Long-term exposure limit (8-hour TWA): SUP 10 ppm

WEL = Workplace Exposure Limit

Ingredient comments

According to EH40 - List of approved workplace exposure limits. For dust the 8 hour TWA's are:-

Respirable dust 4 mg/cu.m (WEL)

Total inhalable dust 10 mg/cu.m (WEL)

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes,cyclics,<2% aromatics (CAS: 64742-48-9)

DNEL

Professional - Dermal; Long term : 208 mg/kg/day

Professional - Inhalation; Long term : 871 (8 hr) mg/m³

Consumer - Dermal; Long term : 125 mg/kg/day

Consumer - Inhalation; Long term : 185 (24 hr) mg/m³

Consumer - Oral; Long term : 125 mg/kg/day

1-METHOXY-2-PROPANOL (CAS: 107-98-2)

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DNEL	Industry - Inhalation; : 553.5 mg/m ³
	Industry - Dermal; Long term : 50.6 mg/kg/day
	Industry - Inhalation; Long term : 369 mg/m ³
	Consumer - Dermal; Long term : 18.1 mg/kg/day
	Consumer - Inhalation; Long term : 43.9 mg/m ³
	Consumer - Oral; Long term : 3.3 mg/kg/day

PNEC	- Fresh water; 10 mg/l
	- Marine water; 1 mg/l
	- STP; 100 mg/l
	- Soil; 2.47 mg/l
	- Sediment; Fresh water 41.6 mg/kg
	- Sediment; Marine water 4.17 mg/kg

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DNEL	Industry - Dermal; Short term : 11.2 mg/cm ²
	Industry - Dermal; Long term : 3.75 mg/cm ²
	Consumer - Dermal; Short term : 11.2 mg/m ²
	Consumer - Dermal; Long term : 3.75 mg/m ²
	Consumer - Oral; : 0.56 mg/kg/day
	Industry - Inhalation; Short term : 3 mg/m ³
Industry - Inhalation; Long term : 3 mg/m ³	

PNEC	- Soil; 217 mg/kg
	Derived calculation
	- Sediment (Marinewater); 108 mg/kg
	- Fresh water; 0.0432 mg/l
	- Marine water; 0.00432 mg/l
	- STP; 10 mg/l
- Sediment (Freshwater); 1080 mg/kg	

ETHYL METHYL KETOXIME (CAS: 96-29-7)

DNEL	Industry - Inhalation; Long term systemic effects: 9 mg/m ³
	Industry - Inhalation; Long term local effects: 3.3
	Industry - Dermal; Long term systemic effects: 1.3 mg/kg/day
	Industry - Dermal; Short term systemic effects: 2.5 mg/kg/day
	Consumer - Inhalation; Long term systemic effects: 2.7 mg/m ³
	Consumer - Inhalation; Long term local effects: 2 mg/m ³
Consumer - Dermal; Long term systemic effects: 0.78 mg/kg/day	
Consumer - Dermal; Short term systemic effects: 1.5	

PNEC	- Fresh water; 0.256 mg/l
	- Intermittent release; 0.118 mg/l
	- STP; 177 mg/l

8.2. Exposure controls

Protective equipment



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Appropriate engineering controls

Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

If these are not sufficient to maintain concentrations of solvent vapour below the OEL, suitable respiratory protection must be worn. Dry sanding, flame cutting and/or welding of the dry paint film may give rise to dust and/or hazardous fumes. Wet sanding should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used. See Respiratory Equipment below.

Personal protection

Requirements for personal protection can only be determined by performing a risk assessment on a case-by-case basis prior to use. This risk assessment should be reviewed regularly.

Eye/face protection

Use safety eyewear, manufactured/tested to EN 166, and designed to protect against splash of liquids.

Hand protection

For prolonged or repeated handling, use chemical resistant gloves classified under "Standard EN374: Protective gloves against chemicals and micro-organisms" made from PE, PVA or Viton gloves.

The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.

Gloves should be replaced regularly and if there is any sign of damage to the glove material.

Always ensure that gloves are free from defects and that they are stored and used correctly.

The performance or effectiveness of the glove may be reduced by physical/ chemical damage and poor maintenance.

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred.

Other skin and body protection

Wear appropriate clothing to prevent any possibility of skin contact. Personnel should wear anti-static clothing made of natural fibre or of high temperature resistant synthetic fibre.

Hygiene measures

Provide eyewash station. Do not smoke in work area. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. Do not eat, drink or smoke when using this product.

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Respiratory protection

For processes where spraying is continuous or when spraying for extended periods (greater than 1 hour), compressed air breathing apparatus should always be worn by the spray operators even when good ventilation is provided. For other operators, whether spraying or not, working inside the spray booth, ventilation is unlikely to be sufficient to control particulates and solvent vapours. In such circumstances, all operators should also wear compressed air breathing apparatus until such time as the particulates and solvent vapour concentration have fallen below the appropriate occupational exposure limits (see Section 8.1).

When spraying only occurs for short periods of time, less than 1 hour, workers must use, as a minimum, certified, reusable half face mask respirators, fitted with a combination filter suitable for the removal of both particulates and solvent vapours.

For application by brush or roller, under good conditions of general or local ventilation, particulates are unlikely to be a problem. If solvent vapour concentrations are greater than the occupational exposure limits (see section 8.1), wear a certified reusable half face mask respirator fitted with a filter suitable for the removal of solvent vapours.

If vigorous application by brush or roller is undertaken that generates airborne mist and particulates, then treat as for spray application.

Enclosed spaces with little or no ventilation: compressed air breathing apparatus should always be worn.

Respiratory protection should not be removed until the particulate and solvent vapour concentrations have fallen below the occupational exposure limits or the operator has entered a clean air area.

Compressed air breathing apparatus: e.g. a hood with a supply of compressed air from a clean source or a fan powered reusable full face mask respirator.

Respiratory protection should be selected so that it is suitable for the user, i.e. facial hair may interfere with the effectiveness of half mask or full face mask respirators

Environmental exposure controls

Do not allow to enter drains or water courses.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Viscous liquid.
Colour	Various
Odour	Hydrocarbons.
Odour threshold	Not determined.
pH	Not determined.
Melting point	<-20°C Data shown for Naphtha (Petroleum), Hydrotreated Heavy
Initial boiling point and range	145 - 200°C @ 760 mm Hg
Flash point	38 - 40°C SCC (Setaflash closed cup).
Evaporation rate	0.11 Data shown for Naphtha (Petroleum), Hydrotreated Heavy
Flammability (solid, gas)	Material is not a solid or gas

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Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.6 % Upper flammable/explosive limit: 8 %
Vapour pressure	0.21 kPa @ °C
Vapour density	Heavier than air
Relative density	1.0 - 1.2 @ 20°C
Solubility(ies)	Immiscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	230 - 270°C
Decomposition Temperature	Not determined.
Viscosity	6.5 - 7.5 poise Rotoinner @ 20°C
Explosive properties	The product itself is not explosive, but the formation of an explosible mixture of vapour or dust with air is possible.
Oxidising properties	The product is not expected to be oxidising
9.2. Other information	
Volatile organic compound	This product contains a maximum VOC content of 380 - 400 g/litre. This product contains a maximum VOC content of 35 - 38 g/100 g.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity Stable under recommended storage and handling conditions (see section 7).
When exposed to high temperatures may produce hazardous decomposition products.

10.2. Chemical stability

Stability Stable under recommended storage and handling conditions (see section 7).

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. When exposed to high temperatures may produce hazardous decomposition products.

10.5. Incompatible materials

Materials to avoid Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions

10.6. Hazardous decomposition products

Hazardous decomposition products such as carbon monoxide and dioxide, smoke, oxides of nitrogen etc.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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General information	There are no data available on the mixture itself. The mixture has been assessed following the method according to the "Classification, labelling and packaging of substances and mixtures" EC 1272/2008 and ensuing amendments and classified for toxicological hazards accordingly. See sections 2 and 3 for details.
Inhalation	Exposure to component solvent vapours concentration in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.
Ingestion	Ingestion may cause nausea, diarrhoea and vomiting.
Skin contact	Repeated or prolonged contact with the mixture may cause removal of natural fat from the skin resulting in non-allergic contact dermatitis and absorption through the skin.
Eye contact	Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain. The liquid splashed in the eyes may cause irritation and reversible damage.
Route of entry	This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.
Medical symptoms	Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin.
Medical considerations	This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Toxicological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute toxicity - oral

Acute toxicity oral (LD₅₀
mg/kg) 5,000.0

Species Rat

ATE oral (mg/kg) 5,000.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀
mg/kg) 5,000.0

Species Rabbit

ATE dermal (mg/kg) 5,000.0

Acute toxicity - inhalation

Acute toxicity inhalation
(LC₅₀ vapours mg/l) 4.95

Species Rabbit

Skin corrosion/irritation

Animal data Prolonged skin contact may defat the skin and produce dermatitis.

Serious eye damage/irritation

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Serious eye damage/irritation	Slightly irritating.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	By analogy with comparable product: Ames test: Negative. Chromosome aberration: Negative. Gene mutation: Negative.
Genotoxicity - in vivo	By analogy with comparable product: Micronucleus test: Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	By analogy with comparable product: Not expected to be carcinogenic.
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	By analogy with comparable product: Animal testing did not show any effects on fertility Parental Toxicity - LOAEL 1500 mg/kg/day, , Fertility - NOAEL 1500 mg/kg/day, Oral, Rat
Reproductive toxicity - development	Developmental toxicity: - NOAEL: 5.22 mg/l, , Maternal toxicity: - NOAEL: >=5.22 mg/l, Inhalation, Rat
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Central nervous system depression including narcotic effects such as drowsiness, narcosis, reduced alertness, loss of reflexes, lack of coordination and vertigo.
Target organs	Central nervous system
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	By analogy with comparable product: Based on available data , the classification criteria are not met. NOAEL >=11.6 mg/l, Inhalation, Rat
<u>Aspiration hazard</u>	
Aspiration hazard	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours)
<u>Inhalation</u>	
Inhalation	Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.
<u>Ingestion</u>	
Ingestion	If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours)
Skin contact	Prolonged contact may cause dryness of the skin.
Eye contact	May cause temporary eye irritation.

1-METHOXY-2-PROPANOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 3,739.0

Species Rat

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ mg/kg) 2,001.0

Species Rabbit

ATE dermal (mg/kg) 2,001.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 25.9

Species Rat

ATE inhalation (vapours mg/l) 25.9

Skin corrosion/irritation

Animal data Slightly irritating to skin.

Serious eye damage/irritation

Serious eye damage/irritation Slightly irritating.

Respiratory sensitisation

Respiratory sensitisation No information available.

Skin sensitisation

Skin sensitisation Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro Gene mutation: Negative.

Genotoxicity - in vivo Micronucleus test: Negative.

Carcinogenicity

Carcinogenicity NOAEL 1000 ppm, Inhalation, Mouse Did not show carcinogenic effects in animal experiments.

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL 300 ppm, Inhalation, Rat P Two-generation study - NOAEL 1000 ppm, Inhalation, Rat F1 Two-generation study - NOAEL 1000 ppm, Inhalation, Rat F2

Reproductive toxicity - development Maternal toxicity:, Fetotoxicity: - NOAEL: 1500 ppm, Inhalation, Rat

Specific target organ toxicity - single exposure

STOT - single exposure No information available.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure No information available.

Aspiration hazard

Aspiration hazard No aspiration hazard expected.

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Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (oral LD₅₀) No mortality Slightly harmful by ingestion.

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 2,000.0

Species Rat

Notes (dermal LD₅₀) No mortality Slightly harmful in contact with skin.

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 5.1

Species Rat

Notes (inhalation LC₅₀) No mortality Slightly harmful by inhalation

ATE inhalation (dusts/mists mg/l) 5.1

Skin corrosion/irritation

Animal data Dose: Mild skin irritation, 4 hours , Rabbit OECD Test Guideline 404 Slightly or not irritating to skin

Serious eye damage/irritation

Serious eye damage/irritation Mild eye irritation OECD 405 rabbit

Skin sensitisation

Skin sensitisation Local Lymph Node Assay (LLNA) - Mouse: OECD Test Guideline 429 No skin allergy observed.

Germ cell mutagenicity

Genotoxicity - in vitro : Inactive in genotoxic in vitro tests

Carcinogenicity

Carcinogenicity Not available.

Reproductive toxicity

Reproductive toxicity - fertility Screening: - NOAEL 1000 mg/kg, Oral, Rat Based on available data, the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure At high concentrations, risk of irritation to respiratory system , Dust, Inhalation,

Specific target organ toxicity - repeated exposure

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STOT - repeated exposure Not classified as STOT by oral route , ,

Aspiration hazard

Aspiration hazard Not applicable

BUTANONEOXIME

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 900.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 1,000.0

Species Rabbit

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 4.83

Species Rat

ATE inhalation (vapours mg/l) 4.83

Skin corrosion/irritation

Animal data Rabbit 24 hours - abraded and non-abraded skin Not fully reversible in 72 hours Slightly irritating.

Serious eye damage/irritation

Serious eye damage/irritation Corrosive eye irritant in rabbits with corneal damage - Category 1(Irreversible).

Skin sensitisation

Skin sensitisation Buehler test: - Guinea pig: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro DNA damage and/or repair: Negative. Based on available data the classification criteria are not met.

Genotoxicity - in vivo Gene mutation:: Negative. Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity 374 ppm, Inhalation, Rat A liver oncogen in male F-344 rats at a vapor concentration of 374 ppm. NOAEL 54 mg/l, Inhalation, Rat

Reproductive toxicity

Reproductive toxicity - fertility Two-generation study - NOAEL >200 mg/kg, Oral, Rat F1

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Reproductive toxicity - development

Developmental toxicity: - NOAEL: 200 mg/kg, Oral, Rat

SECTION 12: Ecological Information

Ecotoxicity

There are no data available on the mixture itself. The mixture has been assessed following the method according to the "Classification, labelling and packaging of substances and mixtures" EC1272/2008 and ensuing amendments and is not classified as dangerous for the environment, but contains substance(s) dangerous for the environment. See section 3 for details. Do not allow to enter drains or water courses.

12.1. Toxicity

Toxicity

There is no toxicity data for the mixture itself.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics

Acute toxicity - fish	LC ₅₀ , 96 hours: > 1000 mg/l, Onchorhynchus mykiss (Rainbow trout) OECD
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: > 1000 mg/l, Daphnia magna OECD
Acute toxicity - aquatic plants	IC ₅₀ , 72 hours: >1000 mg/l, Pseudokirchneriella subcapitata
Acute toxicity - microorganisms	EC ₅₀ , 48 hours: 43.98 mg/l,
Chronic toxicity - aquatic invertebrates	NOEC, 21 days: 0.23 mg/l, Daphnia magna

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Acute toxicity - fish	LC ₅₀ , 96 hours: 6812 mg/l, Leuciscus idus (Golden orfe) LC ₅₀ , 96 hours: 20800 mg/l, Pimephales promelas (Fat-head Minnow)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 23300 mg/l, Daphnia magna
Acute toxicity - aquatic plants	EC ₅₀ , 7 days: >1000 mg/l, Selenastrum capricornutum
Acute toxicity - microorganisms	IC ₅₀ , 3 hours: >1000 mg/l, Activated sludge

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Acute toxicity - fish	LC ₅₀ , 96 hours: > 100 mg/l, Onchorhynchus mykiss (Rainbow trout) OECD Guideline for Testing of Chemicals, No.203 Slightly harmful to fish
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: 94.9 mg/l, Daphnia magna OECD Test Guideline 202 Harmful to daphnia

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Acute toxicity - aquatic plants EC₅₀, 72 hours: 43.2 mg/l, Pseudokirchneriella subcapitata
OECD Test Guideline 201
Harmful to algae

Acute toxicity - microorganisms EC₂₀, 3 hours: > 1000 mg/l, Activated sludge
OECD Test Guideline 209

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Acute toxicity - fish LC₅₀, 96 hours: > 100 mg/l, Oryzias latipes (Red killifish)

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: ~ 201 mg/l, Daphnia magna

Acute toxicity - aquatic plants EC₅₀, 72 hours: ~ 11.8 mg/l, Selenastrum capricornutum

Acute toxicity - microorganisms EC₅₀, 17 hours: ~281 mg/l, Pseudomonas putida

12.2. Persistence and degradability

Persistence and degradability There is no data for the mixture itself.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics

Persistence and degradability 28 days - 80% readily biodegradable - OECD 301F

1-METHOXY-2-PROPANOL

Persistence and degradability The product is biodegradable.

Biodegradation Degradation (%)
Water - Degradation (%) 96: 28 days

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Persistence and degradability 63% (28 days) Activated sludge - Closed bottle test (OECD 301D).
Readily biodegradable.

BUTANONEOXIME

Persistence and degradability The product is readily biodegradable

Stability (hydrolysis) pH4 - Half-life : <0.3 minute @ °C
Hydrolytically unstable at pH4
pH7 - Degradation % 44: 7 days @ 50°C
pH9 - Half-life : > 14 days @ 50°C

Biodegradation water - Degradation (%) 70%: @ 18 days

12.3. Bioaccumulative potential

Bioaccumulative potential There is no data for the mixture itself.

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Partition coefficient Not determined.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics

Bioaccumulative potential No data available on bioaccumulation.

1-METHOXY-2-PROPANOL

Bioaccumulative potential The product does not contain any substances expected to be bioaccumulating.
BCF: < 100,

Partition coefficient : 0.37

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Bioaccumulative potential Potentially bioaccumulating

Partition coefficient : log Kow 8.6 @ 25°C

BUTANONEOXIME

Bioaccumulative potential BCF: 0.5 - 0.6, Cyprinus carpio (Common carp)

12.4. Mobility in soil

Mobility The product is immiscible with water and will spread on the water surface. The product contains organic solvents which will evaporate easily from all surfaces.

Ecological information on ingredients.

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics

Mobility The product contains organic solvents which will evaporate easily from all surfaces. In soil the product has only slight mobility and will partially evaporate

1-METHOXY-2-PROPANOL

Mobility The product is soluble in water. Potential for mobility in soil is very high.

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Adsorption/desorption coefficient - log Koc: 5.4 @ °C

Henry's law constant 11.8 @ °C

BUTANONEOXIME

Adsorption/desorption coefficient Soil - log Koc: 0.55 @ °C QSAR prediction Negligible adsorption to soil and sediment

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

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Other adverse effects Not determined.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information

Do not allow to enter drains or water courses or dispose of where ground or surface waters may be affected. Waste and emptied containers should be classified in accordance with The Environment Protection (Duty of Care) Regulations” (in England, Scotland, Wales or The Controlled Waste (Duty of Care) Regulations in Northern Ireland).

Waste class

The European Waste Catalogue classification of this product, when disposed of as waste is:
Waste Code: Name of Waste (according to Directive 2000/532/EC):

08 01 11 Waste paint and varnish containing organic solvents or other dangerous substances If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information contact your local waste authority. Using the information provided in this safety data sheet, advice should be obtained from the relevant environment agency whether the Hazardous Waste Regulations apply. Empty containers must be scrapped or reconditioned. Dispose of empty containers contaminated by the product in accordance with local or national legal provisions.

SECTION 14: Transport information

Road transport notes

VISCOUS FLAMMABLE LIQUID DEROGATION

In pack sizes less than 450 litres, under the terms of 2.2.3.1.5, this product is not subject to the provisions of ADR. These provisions do not apply to air transport.

Sea transport notes

VISCOUS FLAMMABLE LIQUID DEROGATION:

In pack sizes up to and including 30 litres, under the terms of 2.3.2.5, this product is not subject to the packaging, labelling and marking requirements of the IMDG Code, but both full documentation and placarding of cargo transport units is still required.

Air transport notes

VISCOUS FLAMMABLE LIQUID DEROGATION:

The "viscosity exemption" provision does not apply to air transport. The information provided in this section may not be valid for transport by Air. Please call the number in section 1 of this safety data sheet to obtain more information about the transport of this product by air.

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3

ADR/RID label

3

IMDG subsidiary risk

ICAO subsidiary risk

Transport labels



14.4. Packing group

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PG III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

Transport within the user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of accident or spillage.

EmS F-E, S-E

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not relevant.

SECTION 15: Regulatory information

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

National regulations

The information contained in this safety data sheet does not constitute the user's own assessment of workplace risks, as required by other health and safety legislation.

The provisions of the Health and Safety at Work Act and the Control of Substances Hazardous to Health Regulations apply to the use of this product at work.

The Control of Substances Hazardous to Health Regulations 2002(SI 2002:1689) and amendments.

The Dangerous Substances & Explosive Atmospheres Regulations 2002(SI 2002:2776).

The Manual Handling Operations Regulations 1992, (SI 1992:2793)and amendment, The Stationery Office.

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (SI 2009 No. 716).

The Environmental Protection (Duty of Care) Regulations 1992 (SI 1992:2839), TSO.

Hazardous Waste Regulations 2005 (SI 2005:894) and amendments

The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information. See also the section below titled Paints Directive.

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).

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Guidance

The Approved Classification and Labelling Guide, 6th edition.
COSHH Essentials: easy steps to control chemicals, HSG 193. HSE books. Control Guidance Sheets, which may be relevant to the particular conditions of use, can also be found in this publication.

Chemical Warehousing: Storage of Flammable Liquids in Containers(HSG51), HSE Books.

Storage: Packaged Dangerous Substances HSG71, HSE.

A Guide to Working with Solvents (INDG 272), HSE.

The spraying of flammable liquids HSG178.

Workplace Exposure Limits EH40.

Control of Substances Hazardous to Health (Fifth Edition) (HSE Books L5)

Storage of Dangerous Substances (2003) (HSE Books L135)

Dangerous Substances and Explosive Atmospheres Regulations 2002, (HSE Books L138)

Paints Directive 2004/42/EC

VOC Content: EU limit for this product (Cat A/i) is: 500 g/litre. This product contains a maximum 480 g/litre VOC.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

General information

The product should not be used for purposes other than those shown in Section 1.

Revision comments

This revision is the first to meet the requirements of the "Classification, labelling and packaging of substances and mixtures (CLP) Regulation" EC 1272/2008 and ensuing adaptations to August 2013 Whilst the product itself has not changed, this issue takes into account its reclassification as a consequence of the CLP regulations (see Section 2). Additional information added to Sections 8.1, 8.2, 9.1, 11 and 12. This issue replaces issue 8.00

Issued by

Chief Chemist

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Revision

CLP 1.00

Supersedes date

10/10/2012

SDS number

10829

Risk phrases in full

R10 Flammable.
R21 Harmful in contact with skin.
R40 Limited evidence of a carcinogenic effect.
R41 Risk of serious damage to eyes.
R43 May cause sensitisation by skin contact.
R52 Harmful to aquatic organisms.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

EUH208 Contains BUTANONEOXIME. May produce an allergic reaction.
H226 Flammable liquid and vapour.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H412 Harmful to aquatic life with long lasting effects.

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The information of this SDS is based on the present state of our knowledge and on current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The product should not to be used for purposes other than those shown in section 1 without first referring to the supplier and obtaining written handling instructions. As the specific conditions of use of the product are outside the supplier's control, the user is responsible for ensuring that the requirements or relevant legislation are complied with. The information in this safety data sheet does not constitute the user's own assessment of workplace risks as required by other health and safety legislation.