



SAFETY DATA SHEET

ZINFOS 340WS (BRUSHING) (General colours)

This Safety Data Sheet is prepared in accordance with Annex II to Regulation (EC) No 1907/2006 as amended by Regulations (EU) No. 453/2010 and (EU) 2015/830

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

1.1. Product identifier

Product name ZINFOS 340WS (BRUSHING) (General colours)
Product number ZB/GENERAL
Product SUMI code G
Product SUMI version number 1.00

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

Identified uses An air-drying, liquid, solvent-borne paint for industrial and professional use. 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: 111 in UK, 01 809 2166 in Republic of Ireland

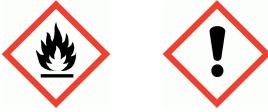
SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical hazards Flam. Liq. 3 - H226
Health hazards STOT SE 3 - H336
Environmental hazards Not Classified

2.2. Label elements

ZINFOS 340WS (BRUSHING) (General colours)**Hazard pictograms****Signal word**

Warning

Hazard statements

EUH208 Contains BUTANONE OXIME. May produce an allergic reaction.
 H226 Flammable liquid and vapour.
 H336 May cause drowsiness or dizziness.

Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P271 Use only outdoors or in a well-ventilated area.
 P261 Avoid breathing vapour/ spray.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
 P312 Call a POISON CENTRE/doctor if you feel unwell.
 P403+P235 Store in a well-ventilated place. Keep cool.

Supplemental label information

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains

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

Supplementary precautionary statements

P240 Ground and bond container and receiving equipment.
 P241 Use explosion-proof electrical equipment.
 P242 Use non-sparking tools.
 P243 Take action to prevent static discharges.
 P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.
 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.

Labelling notes

For full text of Hazard- and EU Hazard-statements: see SECTION 16.

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**

HYDROCARBONS, C9 - C11. n-alkanes, isoalkanes, cyclics, <2% aromatics	25-50%
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CAS number: 1174522-20-3

EC number: 919-857-5

REACH registration number: 01-2119463258-33-XXXX

Classification

Flam. Liq. 3 - H226

STOT SE 3 - H336

Asp. Tox. 1 - H304

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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		

BUTANONE OXIME		0.1 - <1%
CAS number: 96-29-7	EC number: 202-496-6	REACH registration number: 01-2119539477-28-0000
Classification		
Acute Tox. 4 - H312		
Eye Dam. 1 - H318		
Skin Sens. 1 - H317		
Carc. 2 - H351		

The full text for all hazard statements is displayed in Section 16.

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

Ingredient notes Substances presenting a health or environmental hazard within the meaning of Regulation (EC) No. 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

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.
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.

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

Notes for the doctor See above.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media recommended: alcohol resistant foam, CO₂, 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/m³. 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.

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.

6.3. Methods and material for containment and cleaning up

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

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Usage precautions

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 & clothing, 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.

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

Storage precautions

Store in accordance with the Dangerous Substances and Explosive Atmospheres Regulations (DSEAR). 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 150 ppm 1000 mg/m³

1-METHOXY-2-PROPANOL

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

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

Sk

BUTANONE OXIME

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

Sen

WEL = Workplace Exposure Limit

Sen = Capable of causing occupational asthma.

Sk = Can be absorbed through the skin.

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: 1174522-20-3)

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 mg/m³
 Consumer - Oral; Long term : 125 mg/kg/day

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

DNEL Industry - Inhalation; : 553.5 mg/m³
 Industry - Dermal; Long term : 50.6 mg/kg/day
 Industry - Inhalation; Long term : 369 mg/m³
 Consumer - Dermal; Long term : 18.1 mg/kg/day
 Consumer - Inhalation; Long term : 43.9 mg/m³
 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

BUTANONE OXIME (CAS: 96-29-7)

DNEL Industry - Inhalation; Long term systemic effects: 9 mg/m³
 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/m³
 Consumer - Inhalation; Long term local effects: 2 mg/m³
 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

CALCIUM ISONONANOATE (CAS: 53988-05-9)

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DNEL	<p>Workers - Inhalation; Long term systemic effects: 15.7 mg/m³</p> <p>Workers - Dermal; Long term systemic effects: 2.23 mg/kg/day</p> <p>General population - Inhalation; Long term systemic effects: 3.87 mg/m³</p> <p>General population - Dermal; Long term systemic effects: 1.11 mg/kg/day</p> <p>General population - Oral; Long term systemic effects: 1.11 mg/kg/day</p>
PNEC	<p>- Fresh water; 0.068 mg/l</p> <p>- Intermittent release; 1.36 mg/l</p> <p>- marine water; 0.007 mg/l</p> <p>- STP; 23 mg/l</p> <p>- Sediment (Freshwater); 0.904 mg/kg dw</p> <p>- Sediment (Marinewater); 0.09 mg/kg dw</p> <p>- Soil; 0.141 mg/kg dw</p>

8.2. Exposure controls

Protective equipment



Safe use of mixture

This Safety Data Sheet should be read in conjunction with the Safe Use of Mixture (SUMI) report referred to in Section 1. The SUMI provides information collated from exposure scenarios of substances relevant to this product and is provided as part of our obligations under REACH Regulations.

Two-pack product protection

Not applicable

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

Wear 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.

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Hygiene measures	Provide eyewash station. Do not smoke in work area. Wash 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.
Respiratory protection	<p>For application by brush or roller, under good conditions of general or local ventilation, particulates are unlikely to be a problem.</p> <p>If vigorous application by brush or roller is undertaken that generates airborne mist and particulates, then treat as for spray application.</p> <p>On occasions where continuous spraying or when spraying for extended periods (greater than 1 hour) is undertaken, fan-powered reusable full face mask respirators or 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. In such circumstances, all operators should also wear fan-powered reusable full face mask respirators or compressed air breathing apparatus until such time as the particulate concentration has fallen below the appropriate occupational exposure limits (see Section 8.1).</p> <p>When spraying only occurs for short periods of time, less than 1 hour, workers must, as a minimum, use appropriate, certified, half face mask respirators fitted with a particulate filter.</p> <p>Respiratory protection should not be removed until the particulate concentrations have fallen below the below the occupational exposure limits or the operator has entered a clean air area.</p> <p>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.</p> <p>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</p>
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
Initial boiling point and range	145 - 200°C @ 760 mm Hg
Flash point	38 - 40°C Setaflash closed cup.
Evaporation rate	0.11
Flammability (solid, gas)	Material is not a solid or gas
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 0.6 % Upper flammable/explosive limit: 8 %

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Vapour pressure	0.21 kPa @ °C
Vapour density	Heavier than air
Relative density	1.1 @ 20°C
Solubility(ies)	Immiscible with water.
Partition coefficient	Not determined.
Auto-ignition temperature	230 - 270°C
Decomposition Temperature	Not determined.
Viscosity	650 - 750 mPa•s, Rotothinner @ 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 400 g/l. This product contains a maximum VOC content of 37 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

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

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

Skin corrosion/irritation

Skin corrosion/irritation Repeated exposure may cause skin dryness or cracking.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met.

Respiratory sensitisation

Respiratory sensitisation Based on available data the classification criteria are not met.

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Skin sensitisation

Skin sensitisation Contains 2-BUTANONE OXIME. May produce an allergic reaction

Germ cell mutagenicity

Genotoxicity - in vitro Based on available data the classification criteria are not met.

Genotoxicity - in vivo Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility Based on available data the classification criteria are not met.

Reproductive toxicity - development Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure

STOT - single exposure Vapours may cause drowsiness and dizziness.

Target organs Central nervous system

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met.

Aspiration hazard

Aspiration hazard Based on available data the classification criteria are not met.

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

Acts as a defatting agent on skin. May cause cracking of skin, and eczema. The product contains a small amount of sensitising substance which may provoke an allergic reaction among sensitive individuals after repeated contact.

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 exposure

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.

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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

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 Ames test: Negative. Chromosome aberration: Negative. Gene mutation: Negative.

Genotoxicity - in vivo Micronucleus test: Negative.

Carcinogenicity

Carcinogenicity Not expected to be carcinogenic.

Reproductive toxicity

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

Specific target organ toxicity - single exposure

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 Kidneys

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Specific target organ toxicity - repeated exposure

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

Aspiration hazard

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)

Inhalation

Vapours have a narcotic effect. Symptoms following overexposure may include the following: Headache. Fatigue. Dizziness. Nausea, vomiting.

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) 4,016.0

Species Rat

ATE oral (mg/kg) 4,016.0

Acute toxicity - dermal

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

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Skin sensitisation	Not sensitising.
<u>Germ cell mutagenicity</u>	
Genotoxicity - in vitro	Gene mutation: Negative.
Genotoxicity - in vivo	Micronucleus test: Negative.
<u>Carcinogenicity</u>	
Carcinogenicity	NOAEL 1000 ppm, Inhalation, Mouse Did not show carcinogenic effects in animal experiments.
<u>Reproductive toxicity</u>	
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 Suspected reproductive toxicant based on limited evidence.
Reproductive toxicity - development	Maternal toxicity:, Fetotoxicity: - NOAEL: 1500 ppm, Inhalation, Rat Based on available data , the classification criteria are not met.
<u>Specific target organ toxicity - single exposure</u>	
STOT - single exposure	Vapours may cause drowsiness and dizziness.
Target organs	Central nervous system Respiratory system, lungs
<u>Specific target organ toxicity - repeated exposure</u>	
STOT - repeated exposure	No information available.
<u>Aspiration hazard</u>	
Aspiration hazard	No aspiration hazard expected.

BUTANONE OXIME

<u>Acute toxicity - oral</u>	
Acute toxicity oral (LD₅₀ mg/kg)	900.0
Species	Rat
<u>Acute toxicity - dermal</u>	
Acute toxicity dermal (LD₅₀ mg/kg)	1,000.0
Species	Rabbit
<u>Acute toxicity - inhalation</u>	
Acute toxicity inhalation (LC₅₀ vapours mg/l)	4.83
Species	Rat
ATE inhalation (vapours mg/l)	4.83
<u>Skin corrosion/irritation</u>	
Animal data	Rabbit 24 hours - abraded and non-abraded skin Not fully reversible in 72 hours Slightly irritating.
<u>Serious eye damage/irritation</u>	

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Serious eye damage/irritation	Corrosive eye irritant in rabbits with corneal damage - Category 1 (Irreversible).
<u>Skin sensitisation</u>	
Skin sensitisation	Buehler test: - Guinea pig: Sensitising.
<u>Germ cell mutagenicity</u>	
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.
<u>Carcinogenicity</u>	
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
<u>Reproductive toxicity</u>	
Reproductive toxicity - fertility	Two-generation study - NOAEL >200 mg/kg, Oral, Rat F1
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 aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: > 1000 mg/l, Oncorhynchus mykiss (Rainbow trout)
OECD

Acute toxicity - aquatic invertebrates EC₅₀, 48 hours: > 1000 mg/l, Daphnia magna
OECD

Acute toxicity - aquatic plants IC₅₀, 72 hours: >1000 mg/l, Pseudokirchneriella subcapitata

Acute toxicity - microorganisms EC₅₀, 48 hours: 43.98 mg/l,

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates NOEC, 21 days: 0.23 mg/l, Daphnia magna

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Acute aquatic toxicity

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

BUTANONE OXIME

<u>Acute aquatic toxicity</u>	
Acute toxicity - fish	LC ₅₀ , 96 hours: > 100 mg/l, <i>Oryzias latipes</i> (Red killifish)
Acute toxicity - aquatic invertebrates	EC ₅₀ , 48 hours: ~ 201 mg/l, <i>Daphnia magna</i>
Acute toxicity - aquatic plants	EC ₅₀ , 72 hours: ~ 11.8 mg/l, <i>Selenastrum capricornutum</i>
Acute toxicity - microorganisms	EC ₅₀ , 17 hours: ~281 mg/l, <i>Pseudomonas putida</i>

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
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1-METHOXY-2-PROPANOL

Persistence and degradability	The product is biodegradable.
Biodegradation	Degradation (%) Water - Degradation (%) 96: 28 days

BUTANONE OXIME

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.

Partition coefficient Not determined.

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Ecological information on ingredients.

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

Bioaccumulative potential May accumulate in soil and water systems.

Partition coefficient log Pow: 5 - 6.7

1-METHOXY-2-PROPANOL

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

Partition coefficient : 0.37

BUTANONE OXIME

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 The product has poor water-solubility.

Surface tension 0.0237 mN/m @ 25°C

1-METHOXY-2-PROPANOL

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

BUTANONE OXIME

Adsorption/desorption coefficient Water - 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

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).

ZINFOS 340WS (BRUSHING) (General colours)

Waste class

The European List of Wastes classification of this product, when disposed of as waste is:
Waste Code: Name of Waste (according to Decision 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.

Additional information

SECTION 14: Transport information

General

This section contains basic classification information; specific information is not provided for all transport modes if not relevant for the product as supplied. Relevant modal regulations should be consulted if the product is transported onwards.

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.

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.

14.1. UN number

UN 1263

14.2. UN proper shipping name

PAINT

14.3. Transport hazard class(es)

3

ADR/RID label

3

Transport labels



14.4. Packing group

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.

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EmS F-E, S-E
Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL 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 in this Safety Data Sheet is required pursuant to the provisions of the Health and Safety at Work etc. Act and the Control of Substances Hazardous to Health Regulations which apply to the use of this product at work.
The Control of Substances Hazardous to Health Regulations 2002(SI 2002:1689) and amendments.
The Manual Handling Operations Regulations 1992, (SI 1992:2793) and amendment.
The Dangerous Substances & Explosive Atmospheres Regulations 2002(SI 2002:2776).
The Environmental Protection (Duty of Care) Regulations 1992 and amendments
The Waste (England and Wales) Regulations 2011 (SI 2011 No. 988)
The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348) (as amended) ["CDG 2009"].

EU legislation Regulation (EC) No 1907/2006 REACH
Regulation (EC) No 1272/2008 Classification, Labelling and Packaging (CLP)
ADR - European Agreement, the International Carriage of Dangerous Goods by Road

Guidance COSHH Essentials: <http://www.hse.gov.uk/coshh/essentials/index.htm>
Storage of Flammable Liquids in Containers, HSG51 HSE
Chemical Warehousing: The Storage of Packaged Dangerous Substances HSG71, HSE
Working with solvents: A guide to safe working practices, INDG273, HSE
Workplace Exposure Limits EH40.
Safe Use of Gloves, Best Practice Guideline 5, European Solvents Industry Group (ESIG)
The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
Control of Substances Hazardous to Health 2002 (COSHH), HSE
The Dangerous Substances and Explosive Atmospheres Regulations 2002 (DSEAR)
Safe use and handling of flammable liquids HSG140, HSE
A step by step guide to COSHH assessment HSG97, HSE
Respiratory protective equipment at work: A practical guide, HSG53, HSE

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 for this mixture by the supplier.

SECTION 16: Other information

ZINFOS 340WS (BRUSHING) (General colours)

Abbreviations and acronyms used in the safety data sheet

ATE: Acute Toxicity Estimate.
 BCF: Bioconcentration Factor.
 CAS: Chemical Abstracts Service.
 CMR: Carcinogen, Mutagen or Reproductive Toxicant
 COSHH: Control of Substances Hazardous to Health Regulations
 DNEL: Derived No Effect Level.
 ECHA: European Chemicals Agency
 EC₅₀: 50% of maximal Effective Concentration.
 EmS: Emergency Schedule (IMDG)
 GHS: Globally Harmonized System.
 IATA: International Air Transport Association.
 ICAO: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
 IMDG: International Maritime Dangerous Goods.
 Kow: Octanol-water partition coefficient.
 LC₅₀: Lethal Concentration to 50 % of a test population.
 LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).
 LOAEC: Lowest Observed Adverse Effect Concentration.
 LOAEL: Lowest Observed Adverse Effect Level.
 LOEC: Lowest Observed Effect Concentration.
 NOAEC: No Observed Adverse Effect Concentration.
 NOAEL: No Observed Adverse Effect Level.
 NOEC: No Observed Effect Concentration.
 OECD: Organisation for Economic Co-operation and Development
 OEL: Occupational Exposure Limit
 PBT: Persistent, Bioaccumulative and Toxic substance.
 PNEC: Predicted No Effect Concentration.
 RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.
 SDS: Safety Data Sheet
 STOT: Specific Target Organ Toxicity
 (STOT) RE: Repeated Exposure
 (STOT) SE: Single Exposure
 STP: Sewage Treatment Plant
 SVHC: Substances of Very High Concern.
 VOC: Volatile Organic Compound
 vPvB: Very Persistent and Very Bioaccumulative.

General information

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

Key literature references and sources for data

Raw material supplier's Safety Data Sheets. Reference to ECHA Registered Substance dossiers.

Classification procedures according to Regulation (EC) 1272/2008

Unless indicated elsewhere in this safety data sheet, the classification of this mixture has been determined using a combination of test data, bridging principles and calculation.

Legal obligations

Revision comments

Safe use of mixture information added. Amended the identified uses in Section 1.2. Adjusted ingredient list in Section 3 to remove substance below cut-off level

Issued by

Chief Chemist

Revision date

10/01/2020

Revision

CLP 1.02

Supersedes date

24/02/2016

ZINFOS 340WS (BRUSHING) (General colours)

SDS number	10846
Hazard statements in full	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. EUH208 Contains BUTANONE OXIME. May produce an allergic reaction.

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 of 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.

Manor Coating Systems Limited

Safe Use of Mixtures Report



Our SUMI Code: G
Version Number: 1.00
Issue Date: 13/09/2017

Purpose

This Safe Use of Mixtures Report has been compiled from information (including exposure scenarios) that we have received from our suppliers. We are obligated to pass information that is relevant to the safe use of our products (when they are used for their intended purpose and in line with our recommendations shown on our Product Data Sheet) down the supply chain. In general we manufacture mixtures and do not supply substances so we have reviewed the information provided to us and produced this Safe Use of Mixtures Report which should be read in conjunction with the relevant material safety Data Sheet and Product Data Sheet, best practice, process knowledge and guidance notes from the HSE and others when preparing risk assessments and designing safe systems of work. This information is passed down the chain as part of our obligations under REACH.

This report is prepared with our best reasonable endeavour using the information and knowledge in our possession at the date of publication.

SU3 Title	Uses in Coatings - Industrial
SU3 Process Category	PROC1, PROC2, PROC3, PROC4, PROC5, PROC7, PROC8a, PROC8b, PROC9, PROC10, PROC13, PROC15
SU3 Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently).
SU3 Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) within closed or contained systems including incidental exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application activities and film formation) and equipment cleaning, maintenance and associated laboratory activities.
SU3 Other Operational Conditions affecting worker exposure	Assumes use at not > 20°C above ambient (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.
SU3 General exposures (closed systems)	Handle substance within a closed system.
SU3 Mixing operations (closed systems) General exposures (closed systems)	Handle substance within a closed system.
SU3 Film formation - air drying	No specific measures identified.
SU3 Preparation of material for application. Mixing operations (open systems)	No specific measures identified.
SU3 Spraying	No specific measures identified.
SU3 Material transfers. Non-dedicated facility	Clear transfer lines prior to de-coupling.
SU3 Roller, spreader, flow application	No specific measures identified.
SU3 Dipping, immersion and pouring	No specific measures identified.

SU3 Material transfers. Drum/batch transfers. Transfer from/pouring from containers	No specific measures identified.
SU22 Title	Uses in Coatings - Professional
SU22 Process Category	PROC1, PROC2, PROC3, PROC4, PROC5, PROC8a, PROC8b, PROC10, PROC11, PROC13, PROC15, PROC19
SU22 Processes, tasks, activities covered	Covers the use in coatings (paints, inks, adhesives, etc) within closed or contained systems including incidental exposures during use (including materials receipt, storage, preparation and transfer from bulk and semi-bulk, application activities and film formation) and equipment cleaning, maintenance and associated laboratory activities.
SU22 Frequency and duration of use	Covers daily exposures up to 8 hours (unless stated differently).
SU22 Other Operational Conditions affecting worker exposure	Assumes use at not > 20oC above ambient (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented.
SU22 General exposures (closed systems)	Handle substance within a closed system.
SU22 Preparation of material for application	No specific measures identified.
SU22 Film formation - air drying	Ensure operation is undertaken outdoors. Film formation
SU22 Material transfers. Drum/batch transfers	No specific measures identified.
SU22 Brush, Roller, spreader, flow application	Indoor, outdoor. No specific measures identified.
SU22 Spraying. Manual	Indoor: Carry out in a vented booth Outdoor: Ensure operation is undertaken outdoors.
SU22 Dipping, immersion and pouring.	Indoor: Avoid manual contact with wet work pieces. Outdoor: Ensure operation is undertaken outdoors. Avoid manual contact with wet work pieces.

Sectors of Use (SU) and Process Codes (PROC)

Sectors of Use (SU) and Process Codes (PROC) are defined in various regulations.

For the paint industry

SU 3 - Industrial Use of Coatings (eg within a factory on a production line)

SU22 - Use of Coatings by Professional Users (eg a painter and decorator)

Are the most relevant

Method of Preparation

In preparing this Safe Use of Mixtures Report we have relied heavily on the LCID. Specifically contained in Safe Use Information for Mixtures under REACH and the Lead Component (LCID) Methodology - A Brief Description (March 2016) published by CEFIC and their supporting spreadsheets published in 2017.

This approach has been endorsed by the European paint association (CEPE) and the British Coatings Federation (BCF).

The CEFIC approach uses information published by suppliers and in generally available sources including DNELs and PNECs and ECETOC-TRA data.

Further advice, support or assistance

If you require further advice, information, support or assistance please contact us.

Lead Component Identification (LCID) information

LC INHALATION	HYDROCARBONS, C9 - C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
LC INHALATION	HYDROCARBONS, C9 - C11, n-alkanes, isoalkanes, cyclics, <2% aromatics
LC DERMAL	HYDROCARBONS, C9 - C11, n-alkanes, isoalkanes, cyclics, <2% aromatics