



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 14.03.2013

Version number 2

Revision: 14.03.2013

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

- Product identifier
- Trade name: **ZENITH Multi-Thinner slow**
- Article number: Z3032
- Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.
- Application of the substance / the preparation Thinner, Diluent
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
Kristal Coatings B.V.
Platinawerf 22B
6641 TL Beuningen - Holland
Tel: 0031 24 67 526 36
Fax: 0031 24 67 533 60
- Further information obtainable from: Product safety department: info@kristalcoatings.nl
- Emergency telephone number: 0031 24 67 526 36

SECTION 2: Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 3	H226	Flammable liquid and vapour.
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GHS08 health hazard

STOT RE 2	H373	May cause damage to organs through prolonged or repeated exposure.
Asp. Tox. 1	H304	May be fatal if swallowed and enters airways.



GHS05 corrosion

Eye Dam. 1	H318	Causes serious eye damage.
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GHS09 environment

Aquatic Chronic 2 H411	Toxic to aquatic life with long lasting effects.
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GHS07

Skin Irrit. 2	H315	Causes skin irritation.
STOT SE 3	H335-H336	May cause respiratory irritation. May cause drowsiness or dizziness.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC



Xn; Harmful

R20/21-65:	Harmful by inhalation and in contact with skin. Harmful: may cause lung damage if swallowed.
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Xi; Irritant

R37/38:	Irritating to respiratory system and skin.
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N; Dangerous for the environment

R51/53:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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R10: Flammable.

· Information concerning particular hazards for human and environment:

The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

· Label elements

· Labelling according to EU guidelines:

The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

· Code letter and hazard designation of product:

Xn Harmful
N Dangerous for the environment

· Hazard-determining components of labelling:

Hydrocarbons, C9, aromatics
xylene

· Risk phrases:

10 Flammable.
20/21 Harmful by inhalation and in contact with skin.
37/38 Irritating to respiratory system and skin.
51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65 Harmful: may cause lung damage if swallowed.

· Safety phrases:

23 Do not breathe vapour/spray.
24 Avoid contact with skin.
36/37 Wear suitable protective clothing and gloves.
60 This material and its container must be disposed of as hazardous waste.
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

· Special labelling of certain preparations:

Restricted to professional users.

· Additional information: Void

· Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.

· vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

· Chemical characterization: Mixtures

· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 64742-95-6 EC number: 918-668-5 Reg.nr.: 01-2119455851-35	Hydrocarbons, C9, aromatics Xn R65; Xi R37; N R51/53 R10-66-67 Flam. Liq. 3, H226; Asp. Tox. 1, H304; Aquatic Chronic 2, H411; STOT SE 3, H335-H336	25-50%
CAS: 108-65-6 EINECS: 203-603-9 Reg.nr.: 01-2119475791-29	2-methoxy-1-methylethyl acetate R10 Flam. Liq. 3, H226	10-25%
CAS: 1330-20-7 EINECS: 215-535-7 Reg.nr.: 01-2119488216-32	xylene Xn R20/21; Xi R38 R10 Flam. Liq. 3, H226; STOT RE 2, H373; Asp. Tox. 1, H304; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319; STOT SE 3, H335	10-25%

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CAS: 123-86-4	n-butyl acetate	2,5-10%
EINECS: 204-658-1	R10-66-67	
Reg.nr.: 01-2119485493-29	⚠ Flam. Liq. 3, H226; ⚠ STOT SE 3, H336	
CAS: 100-41-4	ethylbenzene	2,5-10%
EINECS: 202-849-4	⚠ Xn R20; ⚠ F R11	
Reg.nr.: 01-2119489370-35	⚠ Flam. Liq. 2, H225; ⚠ Acute Tox. 4, H332	
CAS: 71-36-3	butan-1-ol	2,5-10%
EINECS: 200-751-6	⚠ Xn R22; ⚠ Xi R37/38-41	
Reg.nr.: 05-2114685737-29	R10-67	
	⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; STOT SE 3, H335-H336	

Additional information: For the wording of the listed risk phrases refer to section 16.

* SECTION 4: First aid measures

- Description of first aid measures
- General information:
 - Immediately remove any clothing soiled by the product.
 - Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
 - Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
 - In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
 - Rinse opened eye for several minutes under running water. Then consult a doctor.
 - Remove contactlenses.
- After swallowing:
 - Do not induce vomiting; call for medical help immediately.
 - Rinse out mouth and then drink plenty of water.
- Information for doctor:
- Most important symptoms and effects, both acute and delayed No further relevant information available.
- Indication of any immediate medical attention and special treatment needed
 - No further relevant information available.

* SECTION 5: Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: CO₂ or powder. Fight larger fights with alcohol resistant foam.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture Carbon monoxide (CO)
- Advice for firefighters
- Protective equipment: Wear self-contained respiratory protective device.

SECTION 6: Accidental release measures

- Personal precautions, protective equipment and emergency procedures
 - Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
 - Inform respective authorities in case of seepage into water course or sewage system.
 - Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:
 - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
 - Dispose contaminated material as waste according to item 13.
 - Ensure adequate ventilation.
- Reference to other sections
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

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* SECTION 7: Handling and storage

- Handling:
 - Precautions for safe handling
 - Ensure good ventilation/exhaustion at the workplace.
 - Prevent formation of aerosols.
 - Information about fire - and explosion protection:
 - Keep ignition sources away - Do not smoke.
 - Protect against electrostatic charges.
- Conditions for safe storage, including any incompatibilities
- Storage:
 - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
 - Information about storage in one common storage facility: Store away from oxidizing agents.
 - Further information about storage conditions: Keep container tightly sealed.
 - Specific end use(s) No further relevant information available.

* SECTION 8: Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
- Ingredients with limit values that require monitoring at the workplace:

108-65-6 2-methoxy-1-methylethyl acetate

IOELV Short-term value: 550 mg/m³, 100 ppm
 Long-term value: 275 mg/m³, 50 ppm
 Skin

1330-20-7 xylene

IOELV Short-term value: 442 mg/m³, 100 ppm
 Long-term value: 221 mg/m³, 50 ppm
 Skin

100-41-4 ethylbenzene

IOELV Short-term value: 884 mg/m³, 200 ppm
 Long-term value: 442 mg/m³, 100 ppm
 Skin

· DNELs

64742-95-6 Hydrocarbons, C9, aromatics

Dermal	Long-term exposure - systemic effects	25 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	150 mg/m ³ (worker)

108-65-6 2-methoxy-1-methylethyl acetate

Dermal	Long-term exposure - systemic effects	153,5 mg/kg bw/day (worker)
Inhalative	Long-term exposure - systemic effects	275 mg/m ³ (worker)

1330-20-7 xylene

Dermal	Long-term exposure - systemic effects	180 mg/kg bw/day (worker)
Inhalative	Acute - short-term exposure - local effects	289 mg/m ³ (worker)
	Acute - short-term exposure - systemic effects	289 mg/m ³ (worker)
	Long-term exposure - systemic effects	77 mg/m ³ (worker)

· PNECs

108-65-6 2-methoxy-1-methylethyl acetate

PNEC 100 mg/l (STP)
 6,35 mg/l (aqua, intermittent releases)
 0,0635 mg/l (aqua, marine water)
 0,635 mg/l (aqua freshwater)
 0,329 mg/kg (sediment marine water)
 3,29 mg/kg (sediment freshwater)
 0,29 mg/kg (soil)

1330-20-7 xylene

PNEC 6,58 mg/l (STP)

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- 0,237 mg/l (aqua, freshwater)
- 0,327 mg/l (aqua, intermittent releases)
- 0,327 mg/l (aqua, marine water)
- 12,46 mg/kg (sediment marine water)
- 12,46 mg/kg (sediment freshwater)

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product.

Due to missing tests no recommendation to the glove material can be given for the product.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

* SECTION 9: Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Colour: Clear

· **Odour:** Characteristic

· **Change in condition**

Boiling point/Boiling range: 126 °C

· **Flash point:** 24 °C

· **Ignition temperature:** 315 °C

· **Self-igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

· **Explosion limits:**

Lower: 0,7 Vol %

Upper: 10,8 Vol %

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- Vapour pressure at 20 °C: 6,7 hPa
- Density at 20 °C: 0,89 g/cm³
- Solubility in / Miscibility with water: Insoluble.
- Solvent content:
 - Organic solvents: 100,0 %
- Other information: No further relevant information available.

* SECTION 10: Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: Reacts with strong oxidizing agents.
- Conditions to avoid: High temperatures.
- Incompatible materials: Oxidizing agents.
- Hazardous decomposition products: No dangerous decomposition products known.

* SECTION 11: Toxicological information

- Information on toxicological effects
- Acute toxicity:
- LD/LC50 values relevant for classification:

64742-95-6 Hydrocarbons, C9, aromatics

Oral LD50 >2000- <5000 mg/kg (rat) (OECD 401)
 Dermal LD50 >2000 mg/kg (rab)

108-65-6 2-methoxy-1-methylethyl acetate

Oral LD50 > 5000 mg/kg (rat)
 Dermal LD50 > 5000 mg/kg (rat)

1330-20-7 xylene

Oral LD50 2000-5000 mg/kg (/)
 Inhalative LC50 10-20 mg/l (/)

- Primary irritant effect:
 - on the skin: Irritant to skin and mucous membranes.
 - on the eye: No irritating effect.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
 - The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
 - Harmful
 - Irritant

* SECTION 12: Ecological information

- Toxicity
- Aquatic toxicity:

64742-95-6 Hydrocarbons, C9, aromatics

IC50 1-10 mg/l (algae)
 1-10 mg/l (activated sludge)
 >100 mg/l (bacteria)
 NOEC 1-10 mg/l (activated sludge)
 1-10 mg/l (fish)

108-65-6 2-methoxy-1-methylethyl acetate

EC50/48h 408-500 mg/l (daphnia magna)
 LC50/96h 100-180 mg/l (oncorhynchus mykiss)

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1330-20-7 xylene

EC50/48h 7,4 mg/l (daphnia magna)

IC50 1-10 mg/l (TISBE Marine copepod)

1-10 mg/l (algae)

> 100 mg/l (bacteria)

1-10 mg/l (fish)

NOAEL 0,1-1 mg/l (TISBE Marine copepod)

1-10 mg/l (fish)

- Persistence and degradability No further relevant information available.
- Behaviour in environmental systems:
- Bioaccumulative potential No further relevant information available.
- Mobility in soil No further relevant information available.
- Ecotoxicological effects:
- Remark: Toxic for fish
- Additional ecological information:
- General notes:
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- Waste treatment methods
- Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- European waste catalogue
07 01 04* other organic solvents, washing liquids and mother liquors
- Uncleaned packaging:
- Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- UN-Number
- ADR, IMDG, IATA UN1263
- UN proper shipping name
- ADR 1263 PAINT RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS
- IMDG PAINT RELATED MATERIAL (HYDROCARBONS, C9, AROMATICS), MARINE POLLUTANT
- IATA PAINT RELATED MATERIAL
- Transport hazard class(es)
- ADR, IMDG



- Class 3 Flammable liquids.
- Label 3

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· IATA



· Class	3 Flammable liquids.
· Label	3
· Packing group	
· ADR, IMDG, IATA	III
· Environmental hazards:	Product contains environmentally hazardous substances: HYDROCARBONS, C9, AROMATICS
· Marine pollutant:	Yes Symbol (fish and tree)
· Special marking (ADR):	Symbol (fish and tree)
· Special precautions for user	Warning: Flammable liquids.
· Danger code (Kemler):	30
· EMS Number:	F-E, <u>S-E</u>
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	

· ADR	
· Limited quantities (LQ)	5L
· Transport category	3
· Tunnel restriction code	D/E
· UN "Model Regulation":	UN1263, PAINT RELATED MATERIAL, ENVIRONMENTALLY HAZARDOUS, 3, III

SECTION 15: Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- Other regulations, limitations and prohibitive 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.
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

* SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
 - H225 Highly flammable liquid and vapour.
 - H226 Flammable liquid and vapour.
 - H302 Harmful if swallowed.
 - H304 May be fatal if swallowed and enters airways.
 - H312 Harmful in contact with skin.
 - H315 Causes skin irritation.
 - H318 Causes serious eye damage.
 - H319 Causes serious eye irritation.
 - H332 Harmful if inhaled.
 - H335 May cause respiratory irritation.
 - H336 May cause drowsiness or dizziness.
 - H373 May cause damage to organs through prolonged or repeated exposure.
 - H411 Toxic to aquatic life with long lasting effects.
- R10 Flammable.
- R11 Highly flammable.
- R20 Harmful by inhalation.
- R20/21 Harmful by inhalation and in contact with skin.
- R22 Harmful if swallowed.
- R37 Irritating to respiratory system.

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- R37/38 Irritating to respiratory system and skin.
- R38 Irritating to skin.
- R41 Risk of serious damage to eyes.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R65 Harmful: may cause lung damage if swallowed.
- R66 Repeated exposure may cause skin dryness or cracking.
- R67 Vapours may cause drowsiness and dizziness.

· **Contact:** Dhr. B. Peters· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

· * Data compared to the previous version altered.

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