



22 Harbor Avenue  
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## ZHS 006 and ZHS 005

2003-03-14

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** ZHS 006 and ZHS 005  
**Grades:**  
**Use:** Lubricating oil for metalworking  
**Company:** CS Unitec, Inc.  
22 Harbor Avenue  
Norwalk, CT 06850  
Tel: 203-853-9522  
Fax: 203-853-9921

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

No	Name	EC-No.	CAS-No.	%-mass	Symbol(s)	R Phrases
1	Severely solvent refined mineral oil (IP346 DMSO extract < 3 %)			Ca. 91	-	-
2	Sulphurized esters				-	-
3	Fatty acid esters				-	-
4	Hydrocarbon polymers				-	-

No substances are present in concentrations regarded to present a hazard (Directive 1999/45/EC).

### 3. HAZARDS IDENTIFICATION

**Health:** Unlikely to cause eye irritation.  
Unlikely to cause immediate irritation but prolonged and repeated contact may be harmful to the skin.  
Not volatile. It is not likely to be an inhalation hazard at normal ambient temperatures.  
If overheated, fumes and vapours are irritating to the breathing passages and lungs.  
Ingestion is unlikely to cause adverse systemic health effects.

**Environmental:** Although no specific ecological hazards are expected and bioaccumulation is unlikely, spillage into the environment should always be avoided.

**Physical / Chemical:** Not applicable

**Additional Information:** None

### 4. FIRST AID MEASURES

**Eyes:** Flush the eye with copious amounts of water. No emergency measures are necessary but if adverse eye effects follow, refer for medical attention.

**Skin:** Wash the contaminated skin thoroughly with soap and water. No emergency measures are necessary but if adverse skin effects follow, refer for medical attention.

**Inhalation:** Remove the affected person to fresh air. If recovery is not rapid, obtain medical attention.

**Ingestion:** DO NOT INDUCE VOMITING. No emergency measures are needed but if adverse health effects follow, refer for medical attention.

**Additional Information:**

### 5. FIREFIGHTING MEASURES

**Extinguishing media:** **Recommended:** Dry chemical, foam, CO2, water mist.  
**Not to be used:** Direct water jet. Use water ONLY to keep fire-exposed containers cool.

**Specific exposure hazards:**  
Slight flammability hazard when exposed to heat or flame.

**Special protective equipment for firefighters:**  
Use self-contained breathing equipment when fighting fire in confined spaces.

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**6. ACCIDENTAL RELEASE MEASURES**

<u>Personal precautions:</u>	No special measures needed.
<u>Environmental precautions:</u>	Water may be used to flush spills away from sources of ignition. Do not allow the product to enter public drainage system or open water courses.
<u>Methods for cleaning up:</u>	Absorb and scrape up.
<u>Absorbent materials:</u>	Sand or active clay.

**7. HANDLING AND STORAGE**

<u>Handling:</u>	Avoid prolonged or repeated skin contact. Avoid inhalation of vapour, mist or fume. Do not wear contaminated clothing.
<u>Storage:</u>	Keep containers tightly closed.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

<u>Engineering measures:</u>	No special measures needed.
<u>Control parameters:</u>	TWA TLV (ACGIH) : 5 mg/m <sup>3</sup> for oil mist. However, in all circumstances exposure should be kept as low as reasonably possible by good ventilation and safe working practices.
<u>Respiratory protection:</u>	Inhalation of the vapours, fumes or mists should be avoided by safe working practices and good ventilation.
<u>Eye protection:</u>	If there is a risk of splashing while handling product, eye protection should be worn (e.g. full face shield or goggles with side shields).
<u>Hand/skin protection:</u>	Prolonged and repeated skin contact should be avoided by the use of clean gloves and clean overalls. PVC or nitrile gloves may be suitable.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Physical state	: Oily liquid
Colour	: Yellow
Appearance	: Bright & clear
Odour	: Characteristic
pH	: Neutral
Boiling range, °C	: Initial boiling point (oil base) > 300
Melting Point, °C	: -15
Flash Point, °C	: 188 (ASTM D92, COC)
Autoflammability/ ignition, °C	: > 300 (oil base)
Upper explosion limit	: Not known
Lower explosion limit	: Not known
Vapour pressure, 20 °C, kPa	: < 0.01 (oil base)
Viscosity, kinematic, 40 °C, mm <sup>2</sup> /s	: 28.6
Relative density, 15 °C	: 0.87
Water solubility	: Not soluble
Partition coefficient, n-octanol/water	: Not known
Other data	: Chlorine content: nil : Sulphur content: 1.5 %

**10. STABILITY AND REACTIVITY**

<u>Conditions / materials to avoid:</u>	Stable. May react with strong oxidizing agents.
<u>Hazardous decomposition products:</u>	Thermal decomposition or incomplete combustion may produce oxides of carbon and irritating fumes.

**11. TOXICOLOGICAL INFORMATION**

<u>Eyes:</u>	Unlikely to cause eye irritation.
<u>Skin:</u>	Although incidental contact with the skin does not cause immediate irritation, prolonged and repeated contact may defat the skin and eventually cause dermatitis.
<u>Inhalation:</u>	Not volatile. It is not likely to be an inhalation hazard at normal ambient temperatures. If overheated, fumes and vapours are irritating to the breathing passages and lungs.
<u>Ingestion:</u>	Ingestion is unlikely to cause adverse systemic health effects.
<u>Other:</u>	The refined mineral base oils used in the formulation of this product are of a low order of toxicity in test animals. LD50 (rat) for base oils is above 5 g/kg .



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**12. ECOLOGICAL INFORMATION**

Mobility: Little mobility in soil. Some components may penetrate the soil causing ground water pollution. Will spread on the water surface. A small portion may be dispersed in water.  
Degradability: Not readily biodegradable.  
Ecotoxicity/bioaccumulation: The base oil components are not expected to be dangerous to the aquatic environment.

**13. DISPOSAL CONSIDERATIONS**

Transport to authorized waste location, or incinerate under controlled conditions (EU Directives 2000/76/EC and 1999/31/EC apply).  
European Waste Catalogue Code 12 01 07: mineral based machining oils free of halogens (except emulsions and solutions)

**14. TRANSPORT INFORMATION**

UN-no: Not classified  
RID / ADR: Not classified  
IMO: Not classified  
IATA / ICAO: Not classified  
Other:

**15. REGULATORY INFORMATION**

EC Labelling / Classification:  
Symbol(s): None  
Contains:  
R phrases: None  
S phrases: None  
Other regulations:

**16. OTHER INFORMATION**

Replaces sheet dated: 1999-09-21  
Sections revised: 2-8-13-15-16