



Safety data-sheet (91/155 EEC)

Printed 17.05.2006

Revision 17.05.2006

elma spirol

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Name of product	elma spirol
Manufacturer/distributor	ELMA Hans Schmidbauer GmbH & Co KG Kolpingstr. 1-7, D-78224 Singen (Htwl.) Phone +49 7731 882-0, Fax +49 7731 882-266 E-Mail info@elma-germany.com Internet www.elma-germany.com
Advice	Chemie/Labor Phone +49 7731 882-287 Fax +49 7731 882-266
Emergency advice	Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: D, GB) Phone +49 761 19240

Recommended intended purpose(s)

Solvent for degreasing and cleaning of metallic precision parts (watches etc.).

! 2. COMPOSITION/INFORMATION ON INGREDIENTS

! Chemical characterization

Mixture of C8-isoparaffinic hydrocarbons.

! Hazardous ingredients

CAS-No.	EC-No.	Name	[% weight]	Classification
		octane (isomers)	100	F R11; Xn R65; Xi R38; R67; N R50/53

3. HAZARDS IDENTIFICATION

R-phrases

11	Highly flammable.
38	Irritating to skin.
50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
65	Harmful: may cause lung damage if swallowed.
67	Vapours may cause drowsiness and dizziness.

Special hazards information for humans and environment

In use, may form flammable/explosive vapour-air mixture.

4. FIRST AID MEASURES

General information

Remove contaminated soaked clothing immediately.
Take affected person into fresh air.

In case of inhalation

Remove the casualty into fresh air and keep him immobile.
In the event of symptoms refer for medical treatment.

In case of skin contact

In case of contact with skin wash off immediately with plenty of water.
Consult a doctor if skin irritation persists.



In case of eye contact

In case of contact with eyes rinse thoroughly with plenty of water and seek medical advice.

In case of ingestion

Do not induce vomiting.

If swallowed seek medical advice immediately and show the doctor packing or label.

Physician's information / possible symptoms

Dizziness

Physician's information / possible dangers

Risk of pulmonary oedema

Treatment (Advice to doctor)

Continue to monitor for pneumonia and pulmonary oedema.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Foam

Dry fire-extinguishing substance

Dry powder

Water spray jet

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

In the event of fire the following can be released:

Carbon monoxide (CO)

Flammable vapor-air-mixture are more heavy than air. Inflammation over far distance is possible.

Special protective equipment for fire-fighters

Do not inhale explosion and/or combustion gases.

Additional information

Cool endangered containers with water spray jet.

Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

Ensure adequate ventilation.

Use personal protection.

Keep away sources of ignition.

Pay attention to extension of gas especially at ground (heavier than air) and in direction of the wind.

Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

Do not discharge into the subsoil/soil.

Methods for cleaning up

Send in suitable containers for recovery or disposal.

Take up with absorbent material (e.g. oil binder).

7. HANDLING AND STORAGE

Advice on safe handling

Care for thoroughly room ventilation, if necessary suck off at workplace.

Use solvent-resistant equipment.

Keep limited supplies at workplace.



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Advice on protection against fire and explosion

Keep away from sources of ignition - No smoking
Vapours can form an explosive mixture with air.
Take precautionary measures against static discharges.

Requirements for storage rooms and vessels

Keep in closed original container.

Advice on storage compatibility

Do not store together with oxidizing agents.

Further information on storage conditions

Keep locked up, out of reach of children
Protect from heat and direct solar radiation.
Keep container dry, tightly closed and store at cool and aired place.
Keep under lock and key or accessible only to specialists or people authorized by them.
Keep in a cool place, heat causes increase in pressure and risk of bursting.

Information on storage stability

Storage time: 24 months.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional advice on system design

Technical exhaustion if there is a long-term exposition

Ingredients with occupational exposure limits to be monitored

CAS-No.	Name	Code	[mg/m ³]	[ml/m ³]	Remark
	octane (all isomeres)	MAK	2400	500	

Additional advice

Germany: TRGS 900/901

Hand protection

Gloves (solvent-resistant)
Glove material specification [make/type, thickness, permeation time/life]: NBR, 0,35mm, >=8h.
Glove material specification [make/type, thickness, permeation time/life]: FKM, 0,4mm, >=8h.

Eye protection

tightly fitting goggles

General protective measures

Avoid contact with eyes and skin
Do not inhale gases/vapours/aerosols.

Hygiene measures

Provide washing facilities at place of work.
Keep away from food and drink.

! 9. PHYSICAL AND CHEMICAL PROPERTIES

Form	Colour	Odour
liquid	colourless	characteristic

Important health, safety and environmental information

	Value	Temperature	at	Method	Remark
pH value in delivery state					not applicable
boiling range	98 - 102 °C			DIN 51751	

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	Value	Temperature	at	Method	Remark
Flash point	-14 °C			DIN 51755	
Combustion temperature	420 °C			DIN 51794	
Autoignition					no
Lower explosion limit	0,8 Vol-%				
Upper explosion limit	7,5 Vol-%				
Vapour pressure	116 mbar	38 °C			
Density	0,697 - 0,71 g/cm ³	15 °C		DIN 51757	
Solubility in water		20 °C			insoluble
Viscosity 1 kinematic	0,572 mm ² /s	38 °C		DIN 51550	
Solvent concentration	100 %				

10. STABILITY AND REACTIVITY**Conditions to avoid**

Evolution of highly flammable gases/vapours.

Materials to avoid

Reactions with strong oxidising agents.

Hazardous decomposition products

no

11. TOXICOLOGICAL INFORMATION**Acute toxicity/Irritability/Sensitization**

	Value/Validation	Species	Method	Remark
LD 50 acute oral	> 2000 mg/kg	rat		
Irritability skin	irritant			
Irritability eye	low irritant			
Sensitization skin	non-sensitising			

Experiences made from practice

Has a degreasing effect on the skin.

12. ECOLOGICAL INFORMATION**Data on elimination (persistence and degradability)**

	Elimination rate	Method of analysis	Method	Validation
Physico-chemical degradability	100 %		Activated charcoal adsorption	



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Ecotoxicological effects

Value	Species	Method	Validation
Fish	LC50 ca. 100 mg/l (96 h)		

Additional ecological information

Value	Method	Remark
AOX		The product does not contain any organically bound halogens according to the recipe.

General regulation

Do not discharge product unmonitored into the environment.

13. DISPOSAL CONSIDERATIONS

Waste code No.	Name of waste
14 06 03*	other solvents and solvent mixtures

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

Recommendations for the product

For recycling consult manufacturer.

Material recycling possible.

Incinerate in suitable incineration plant, but care for official regulations.

Recommendations for packaging

Packaging that cannot be cleaned should be disposed of like the product.

! 14. TRANSPORT INFORMATION

! Land and inland navigation transport ADR/RID
UN 3295 HYDROCARBONS, LIQUID, N.O.S., 3, II

Marine transport IMDG
UN 3295 HYDROCARBONS, LIQUID, N.O.S., 3, II

Air transport ICAO/IATA-DGR
UN 3295 HYDROCARBONS, LIQUID, N.O.S., 3, II

! 15. REGULATORY INFORMATION

Remarks for classification

The product is classified and labelled in accordance with EC directives/German regulations on dangerous substances.

Classification

F	Highly flammable
Xn	Harmful
N	Dangerous for the environment

R-phrases

11	Highly flammable.
38	Irritating to skin.
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S-phrases

- 16 Keep away from sources of ignition - No smoking.
2 Keep out of the reach of children.
29 Do not empty into drains.
3/7/9 Keep container tightly closed in a cool, well-ventilated place.
33 Take precautionary measures against static discharges.
60 This material and its container must be disposed of as hazardous waste
61 Avoid release to the environment. Refer to special instructions/safety data sheets.
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

! Hazardous ingredients for labeling

octane (isomers)

VOC standard

VOC content 100 %

16. OTHER INFORMATION

Further information

These data are given according to our actual knowledge about this product. This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Sources of key data used

Own measurements.

Wording of the R-phrases specified in chapter 2 (not the classification of the formulation!)

R 11 Highly flammable.

R 38 Irritating to skin.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 65 Harmful: may cause lung damage if swallowed.

R 67 Vapours may cause drowsiness and dizziness.