1 Identification of the substance/preparation and the manufacturer

1.1 Identification of the product

Product name: Immersion oil 518 C

1.1.2 Recommended use:

Immersion oil for use in microscopy

1.2 Identification of manufacturer/supplier

Manufacturer/Supplier:	Carl Zeiss
Street/P.O.B.:	Carl-Zeiss-Str. 22
Postal code/town:	73447 Oberkochen
Telephone:	7364/20-0
Contact for information:	Department of Chemistry and Environmental Protection
Telephone:	7364/204606/4599
Fax:	7364/20-4521
Emergency telephone:	In case of poisoning, call Munich 89/4140211 Fax 89/4140267

2 Composition/information on ingredients

2.2 Chemical characterization (preparation)

2.2.1 Description

CAS-No.	name	content	marking
85535-84-8	chloroparaffins	60-70 %	N; R 50/53
84-74-2	di-n-butyl phthalate	> 10 %	Xn, N; R 62-63-50/53

3 Hazards

Possible risk of impaired fertility.
Possible risk of harm to the unborn child.
The MAK list of 1995 classifies chloroparaffins (C10 to C30) with a clorine content of 20% - 70% as Group III B cancerogens. However, no marking is required by GefStoffV.

4 First aid measures

4.1 General

Immediately change contaminated clothing.

4.2 After inhalation

4.3 After contact with skin

Wash with plenty of water and soap.

4.4 After contact with eyes

Rinse with plenty of water.

4.5 After ingestion

Seek medical advice and submit safety data sheet.

4.6 Information for the physician

5 Fire-fighting measures

5.1 Suitable extinguishing media
Water spray, foam, carbon dioxide, dry extinguishing media

5.2 Media not to be used for safety reasons

5.3 Special hazards caused by the substance, its combustion products or the generation of gases
Heat causes liberation of hydrochloric acid.

5.4 Personal protective equipment in fire fighting
Wear self-contained breating apparatus.

5.5 Further information

6 Steps to be taken in case material is accidentally released

6.1 Person-related precautionary measures
Wear protective clothing when large amounts of the substance have been released.

6.2 Environmental protection
Do not empty into drains.

6.3 Removal
Remove drop on slide with absorptive cloth. Pick up larger amounts using liquid-binding materials such as sand or sawdust and dispose of in accordance with local regulations.

6.4 Further information

7 Handling and storage

7.1 Handling

7.1.1 Notes on safe handling
Keep container tightly closed and in a cool place.

7.1.2 Notes on fire and explosion hazards
No fire and explosion hazards exist.

7.2 Storage

7.2.1 Requirements to be met by storage rooms and containers
Storage temperature should not exceed 50 deg C.

7.2.2 Storage class
Storage class 10 (combustible liquids)

8 Exposure controls and personal protection

8.1 Additional notes on the design of technical facilities

8.2 Ingredients covered by workstation-related limit values to be monitored

8.3 Personal protective equipment

8.3.1 General protection and hygiene
Observe the usual precautions applicable to the handling of chemicals.

8.3.2 Respiratory protection
Not required if properly used.

8.3.3 Hand protection
Protective gloves

8.3.4 Eye protection

9 Physical and chemical properties

9.1 Appearance

9.1.1 Form: liquid 9.1.2 Color: weakly yellow 9.1.3 Odor: virtually odorless

9.2 Safety data

9.2.2	Flash point:	> 150	°C	
9.2.9	Vapor pressure:	< 0.001	hPa	(20°C)
9.2.10	Specific gravity:	1.29	g/cm³	(20°C)
9.2.11	Solubility/H_2O:	insoluble		
9.2.14	Viscosity kin.:	435	mm²/s	(20°C)

9.3 Further information

10 Stability and reactivity

10.1 Thermal decomposition
from approx. 200 deg C

10.2 Hazardous reactions

10.2.1 Conditions to avoid
High temperatures (premature ageing).

10.3 Hazardous decomposition products
Hydrochloric acid

10.4 Further information

11 Information on toxicity

11.1 Acute toxicity
LD50 (oral, rat): > 2,000 mg/kg for chloroparaffins

11.2 Subacute to chronic toxicity
Animal experiments have shown that short-chain chloroparaffins possess a weak cancerogenic potential in animals. For this reason, the German Federal Parliament included them in the MAK list of 1990 as Group III B cancerogens. As there is some evidence that the effects of these paraffins do not cause cancer in humans, they have not yet been classified by GefStoffV. If the assessment by the MAK Commission is confirmed, the substance will be classified as "Harmful: possible risk of irreversible effects" (R40).

11.4 Further information

12 Information on ecological effects

12.1 Information on elimination (persistence, degradability)

12.2 Behavior in environment

12.3 Ecotoxic effects

12.4 Further information:
Do not discharge into drains or the environment.

13 Notes on disposal

13.1 Product

13.1.1 Recommendation
Dispose of as special waste. Do not discharge into the environment.

13.1.2 German Waste product key: 55220 (Solvent mixture contains halogen)
Contact local environment agency.

13.2 Uncleaned packagings
Uncleaned packagings to be disposed of in the same way as the product.

14 Transport information

14.1 Carriage by land RID/ADR
No dangerous good
Comments:

14.2 Inland waterway transportation

14.3 Sea transportation IMDG
Class: 9 UN No.: 3082 PG: III
EmS: - MFAG: - IMDG-Code Page: 9028
Correct technical name: Environmentally hazardous substance, liquid, (CHLORINATED PARAFFINS C10-C30)
Comments: marine pollutant

14.4 Air transportation ICAO/IATA
Class: 9 UN/ID No.: 3082 PG: III
Correct technical name: Environmentally hazardous substance, liquid, (Chlorinated paraffins C10-C30)
Comments:

14.5 Transportation/Further information

15 Regulations

15.1 Marking in accordance with EU Directives

15.1.1 Code letter and hazard marking of product
Marking: Xn - HARMFUL

15.1.2 Hazard-defining component(s) for labeling
di-n-butyl phthalate

15.1.3 R-phrases
Possible risk of impaired fertility.
Possible risk of harm to the unborn child.

15.1.4 S-phrases
Wear suitable protective clothing and gloves.

15.2 German regulations

15.2.3 VbF classification: not applicable
15.2.5 Water pollution class: 3 - highly polluting substance

16 Other information

The information in this safety sheet is based on the data available at the time of compilation and is intended to describe the product with respect to the precautions to be taken in its use. This information is provided without any guarantee of the properties specified.

16.1 Further information

16.2 Department compiling safety data sheet:
Dept. of Chemistry and Environmental Protection

16.3 Contact:
G. Zeiher, Tel. 7364/204606