



SAFETY DATA SHEET

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

1.1. Product identifier

Product name: Immersion Oil Type B
Product code: MXA20352:1fl.oz

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

Identified uses: Oil for microscope, oil-immersion objective lenses
Uses advised against: No information

1.3. Details of the supplier of the safety data sheet

Name of importer: Nikon Instruments Europe B.V.
Department in Charge Marketing
Address Tripolis 100, Burgerweeshuispad 101, 1076 ER Amsterdam,
The Netherlands
Telephone number +31-20-7099-000
Fax number +31-20-7099-298
e-mail address microscope.eu@nikon.com

Manufacturer Cargille Laboratories
Address 55 Commerce Road Cedar Grove, NJ 07009-1289 USA

Name of supplier in Japan: NIKON CORPORATION
Department in Charge Healthcare Business Unit
Address Yokohama Plant
471, Nagaodai-cho, Sakae-ku, Yokohama, Kanagawa 244-
8533
Telephone number +81-45-853-8608
Fax number +81-45-853-8485
e-mail address Msqa.Manager@nikon.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008:

Skin Irrit. 2: H315
STOT SE 3: H335
STOT RE 2: H373
Aquatic Chronic 1: H410

2.2. Label elements

Pictogram



Signal word

Warning

Hazard Statements

H315: Causes skin irritation
H335: May cause respiratory irritation
H373: May cause damage to organs (Liver) through prolonged or repeated exposure
H410: Very toxic to aquatic life with long lasting effects

Precautionary Statements

[Prevention]

P260: Do not breathe dust/fume/gas/mist/vapours/spray.

P273: Avoid release to the environment.

[Emergency response]

P314: Get medical advice/attention if you feel unwell.

P332+P313: If skin irritation occurs: Get medical advice/attention.

[Storage]

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

[Disposal]

P501: Dispose of contents/ container in accordance with related laws and local/ regional regulations.

2.3. Other hazards

The product does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.



SECTION 3: Composition/information on ingredients

3.1. Substances Not applicable

3.2. Mixtures

Product Name: Immersion Oil Type B

Information on ingredients:

Chemical name	CAS No.	EC No.	Index No.	REACH Registration No.*	Concentration (wt %)	Classification
-	-	-	-	01-21199300 64-48-XXX X	25 - 50	-
Hydrogenated terphenyls	-	-	-	01-21194881 83-33-XXX X	25 - 50	Skin Irrit. 2: H315 STOT SE 3: H335 STOT RE 2: H373 (Liver)
-	-	-	-	-	25 - 50	-
Terphenyl	-	-	-	01-21194882 20-43-XXX X	1 - 2.5	Aquatic Chronic 1: H410

* Registration numbers of ingredients which shall be in compliance with Regulation (EC) No 1907/2006 will be filled in later.

SECTION 4: First aid measures

4.1. Description of first aid measures

IF INHALED	Supply fresh air; consult doctor in case of complaints.
IF ON SKIN	Immediately wash with water and soap and rinse thoroughly. If skin irritation continues, consult a doctor.
IF IN EYES	Remove contact lenses if worn. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
IF SWALLOWED	Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for medical help immediately.

4.2. Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders when ingested.
Causes skin irritation.
May cause respiratory irritation.



May cause damage to organs (Liver) through prolonged or repeated exposure.

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

If medical advice is needed, have product container or label at hand.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam, fire-extinguishing powder, gaseous extinguishing agents, carbon dioxide, water haze or fog

Unsuitable extinguishing media

Water with full jet

5.2. Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

5.3. Advice for firefighters

Wear self-contained respiratory protective device.

Wear fully protective suit.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:

Wear protective equipment.

For emergency responders:

Keep unprotected persons away.

Ensure adequate ventilation.

6.2. Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

6.4. Reference to other sections

Refer to "SECTION 8: Exposure controls/personal protection" and "SECTION 13:

Disposal considerations" as appropriate.



SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures:

No special measures required.
Avoid splashes or spray in enclosed areas.

Advice on general occupational hygiene:

Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:

No special measures required.

Incompatible materials:

Store away from oxidisers, strong acids, strong bases.

Conditions for safe storage:

Avoid storage near extreme heat, ignition sources or open flame.
Store in a well-ventilated place. Keep cool.
Store away from foodstuffs.
Further information about storage conditions:
Storage Temperatures: 65 - 90°F/18 - 32°C.
Keep container tightly sealed.

Packing material:

Use a sealed container without damage or leakage.

7.3. Specific end use(s)

Oil for microscope, oil-immersion objective lenses

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Acceptable concentration (exposure limit, biological exposure index)

EU IOELV (2009)	Not applicable.
ACGIH TLV-TWA (2017)	0.5 ppm, 4.9 mg/m ³ (Hydrogenated terphenyls)
ACGIH TLV-STEL (2017)	0.53 ppm (Ceiling), 5 mg/m ³ (Ceiling) (Terphenyl)



8.2. Exposure controls

Appropriate engineering controls:

The usual precautionary measures are to be adhered to when handling chemicals.

Do not inhale gases/fumes/aerosols.

Avoid contact with the eyes and skin.

Personal protective equipment:

Respiratory protection	Not required under normal conditions of use.
Hand protection	Protective gloves The glove material has to be impermeable and resistant to the product/the substance/the preparation.
Eye protection	Safety glasses Follow relevant national guidelines concerning the use of protective eyewear.
Skin and body protection	Protective work clothing

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance (physical state, form and colour)	Colourless to light yellow oily liquid
Odour	Slight odour
Odour threshold	Not determined
pH	Not applicable
Melting point/freezing point	0°C
Initial boiling point and boiling range	340°C (1 atm/1.0132 bar)
Flash point	163°C (Open Cup)
Evaporation rate	< 1.0 (water = 1.0)
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not determined
Vapour pressure	< 0.133 hPa (< 0.1 mm Hg)
Vapour density	Not determined
Relative density	Density: 0.923 g/cm ³ (25°C) Relative density: Not determined
Solubility (ies)	Water: Not miscible or difficult to mix.
Partition coefficient: <i>n</i> -octanol/water	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	Not determined
Viscosity	Dynamic (23°C): > 1250 cSt Kinematic (40°C): > 20.5 mm ² /sec (DIN 53211/4)
Explosive properties	No information
Oxidising properties	Not determined



9.2. Other information

No information

SECTION 10: Stability and reactivity

10.1. Reactivity

No further relevant information available.

10.2. Chemical stability

Stable under normal temperatures and pressures.

10.3. Possibility of hazardous reactions

Can form explosive mixtures in air if heated above flash point and/or when sprayed or atomised.

10.4. Conditions to avoid

No decomposition if used and stored according to specifications.
Excessive heat.
Store away from oxidising agents.

10.5. Incompatible materials

Reacts with strong oxidising agents.
Reacts with strong acids and alkali.

10.6. Hazardous decomposition products

Under fire conditions only: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Information on product:

Skin corrosion/irritation:	Causes skin irritation. Irritating to skin.
Other toxicological information	No information



Information on ingredients:

Hydrogenated terphenyls

Acute toxicity (oral):	Rat LD ₅₀ = 6,600 mg/kg - 17,500 mg/kg
Acute toxicity (dermal):	Rabbit LD ₅₀ > 2,000 mg/kg
Acute toxicity (inhalation: dust/mist):	Rat 4hr-LC ₅₀ > 4.7 mg/L Rat 4hr-LC ₅₀ > 4.3 mg/L (OECD TG 403, GLP)
Skin corrosion/irritation:	In a skin irritation test with rabbits, moderate irritation was observed.
STOT-single exposure:	About humans, there are descriptions that "irritation on an upper respiratory tract and nausea symptoms are present" when aerosol was inhaled, and that "an airway is stimulated" in the acute inhalation exposure test employing rats", therefore, it classified into Category 3 (Respiratory tract irritation). In addition, the acute oral toxicity tests employing rats (OECD TG 401, GLP) has a description that "control of spontaneous movement, and dirt on hairs by diarrhea, feces and urine were seen with general findings, but necropsy findings were normal in all animals" by 10,000 mg/kg. Moreover, there is a description that "short term exposure effect: eyes, skin, and respiratory tract are stimulated".
STOT-repeated exposure:	In a 20-day dermal administration test with rabbits (International Research and Development Corp. method, GLP) it was reported that "at 2,000 mg/kg there was no systemic toxicity", and in a 90-day oral administration study with rats (OECD TG 408, GLP) it was reported that "there were weight increase in the liver, kidney and adrenal gland (females only) and weight loss in female animals but no toxic effects related to administration of this substance in histopathological studies ". Also, in a 90-day aerosol inhalation exposure test with rats (OECD TG 413, GLP) there is a report of "weight loss, increased liver weight and chromodacryorrhea", and in a 182-day aerosol inhalation exposure test with rats (Industrial Biotest Laboratory, Inc. method) there is a report of "an increase in SGOT, SAP and SGPT, a reduction in BUN and an increase in liver weight".
Other toxicological information	No information



Terphenyl

Acute toxicity (oral):	Rat LD ₅₀ = 17,500 mg/kg
Acute toxicity (dermal):	Rabbit LD ₅₀ > 12,500 mg/kg
Other toxicological information	No information

SECTION 12: Ecological information

12.1. Toxicity:

Information on product: No information

Information on ingredients:

Terphenyl

Aquatic acute toxicity:	No information
Aquatic chronic toxicity:	Very toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability:

Information on product: No information

Information on ingredients: No information

12.3. Bioaccumulative potential:

Information on product: No information

Information on ingredients: No information

12.4. Mobility in soil:

Information on product: No information

Information on ingredients: No information

12.5. Results of PBT and vPvB assessment:

The product does not meet the PBT and vPvB criteria.

12.6. Other adverse effects:

No information

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Must not be disposed together with household garbage. Do not allow product to reach sewage system. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Disposal must be made according to official regulations.



SECTION 14: Transport information

14.1. UN number	3082
14.2. UN proper shipping name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S (TERPHENYL)
14.3. Transport hazard class (es)	9
14.4. Packing group	III
14.5. Environmental hazards	Applicable

14.6. Special precautions for user

Not regulated when carried in single or combination packaging containing a net quantity of 5 L or less for liquids or 5 kg or less for solids per the following.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and IBC code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/ legislation specific for the substance or mixture

The product and its ingredients are not regulated by specific provisions related to protection of human health or the environment at EU level, e.g. not considered as SVHCs or POPs.

15.2. Chemical safety assessment

Not conducted

SECTION 16: Other information

Update history:

Date of issue: 28th APRIL, 2016
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References:

NITE GHS classification results (<http://www.safe.nite.go.jp/ghs/list.html>) (2017)
ACGIH, American Conference of Governmental Industrial Hygienists (2017) TLVs and BEIs.

Abbreviations

PBT: Persistent, Bioaccumulative and Toxic substance
POPs: Persistent Organic Pollutants
STOT: Specific Target Organ Toxicity
SVHC: Substances of Very High Concern
vPvB: Very Persistent and Very Bioaccumulative



[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.