

Material Safety Data Sheet

(14652)

Section 1: Chemical Product and Company Identification

Product Name: Technovit 3040 Liquid

Catalog Number: 14652

CAS#: see Section 2

Contact Information:

Electron Microscopy Sciences

1560 Industry Road

Hatfield, PA 19440

1-215-412-8400 (phone)

1-800-523-5874 (toll-free)

1-215-412-8450 (fax)

Order Online: emsdiasum.com

CHEMTREC (24-Hour Emergency Telephone), call: 1-800-424-9300

Section 2: Composition and Information on Ingredients

Chemical characterization

Description: Product based on methacrylates

Dangerous components:

CAS: 80-62-6 EINECS: 201-297-1	Methyl methacrylate	Xi, F; R 11-37/38-43	> 90%
CAS: 99-97-8 EINECS: 202-805-4	N,N-dimethyl-p-toluidine	T; R 23/24/25-33-52/53	0-5%

Additional Information: For the wording of the listed risk phrases refer to Section 16.

Section 3: Hazards Identification

Information pertaining to particular dangers for man and environment.

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

R11: Highly flammable

R 20/21/22: Harmful by inhalation, in contact with skin and if swallowed

R 33: Danger of cumulative effects.

R 37/38: Irritating to respiratory system and skin.

R 43: May cause sensitization by skin contact.

Classification system

The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

Section 4: First Aid Measures

General Information

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; consult doctor in case of symptoms.

After skin contact: Instantly wash with water and soap and rinse thoroughly.

After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult doctor.

After swallowing: Instantly call doctor. Do not induce vomiting; instantly call for medical help.

Section 5: Fire and Explosion Data

Suitable extinguishing agents

CO₂, extinguishing powder for water jet. Fight larger fires with water jet or alcohol-resistant foam.

CO₂, sand, extinguishing powder. Do not use water.

For safety reasons unsuitable extinguishing agents

Water.

Water with full water jet.

Special hazards caused by the material, its products of combustion or flue gases:

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

Protective equipment: Put on breathing apparatus

Section 6: Accidental Release Measures

Person-related safety precautions: Wear protective equipment. Keep unprotected persons away.

Measures for environmental protection:

Prevent material from reaching sewage system, holes and cellars.

Measures for cleaning/collecting:

Absorb with liquid-binding material (diatomite, universal binders for small amounts tissues).

Dispose of contaminated material as waste according to item 13.

Do not flush with water or aqueous cleansing agents.

Additional information: No dangerous materials are released.

Section 7 : Handling and Storage

Handling

Information for safe handling:

Keep containers tightly sealed

Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires:

Keep ignition sources away – Do not smoke.

Protect against electrostatic charges.

Storage

Requirements to be met by storerooms and containers: Store in cool location.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:

Store cool (not above 25 °C).
Store in cool, dry conditions in well sealed containers.

Section 8: Exposure Controls/Personal Protection

Additional information about design of technical systems: No further data; see item 7.

Components with critical values that require monitoring at the workplace:

80-62-6 methyl methacrylate

OES: Short-term value: 416 mg/m³, 100 ppm

Long-term value: 208 mg/m³, 50 ppm

Additional information: The lists that were valid during the compilation were used as basis.

Personal protective equipment

General protective and hygienic measures

Keep away from foodstuffs, beverages and food.

Instantly remove any soiled and impregnated garments.

Wash hands during breaks and at the end of the work.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

Breathing equipment:

Not necessary with efficient local exhaust. If exposition to vapors is possible, use breathing protective mask (filter A).

Protection of hands:

If skin contact cannot be avoided, protective gloves are recommended to avoid possible sensitization.

Solvent resistant gloves.

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

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 cannot 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.

For the permanent contact in work areas without heightened risk of injury (e.g. Laboratory) gloves made of the following material are suitable:

PVA gloves

For the permanent contact of a maximum of 15 minutes gloves made of the following materials are suitable:

Butyl rubber, BR

Fluorocarbon rubber (Viton)

Nitrile rubber, NBR

Chloroprene rubber, CR

Eye protection: not absolutely necessary

Body protection: Light weight protective clothing

Section 9: Physical and Chemical Properties

General Information:

Form: Fluid

Color: Colorless

Smell: Characteristic

Changes in condition

Melting Point/Melting Range: Not determined

Boiling Point/Boiling Range: 100°C

Flash Point: 10°C
Ignition temperature: 430°C
Self-inflammability: Product is not self-igniting
Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.
Critical values for explosion:
Lower: 2.1 Vol %
Upper: 12.5 Vol %
Steam Pressure at 20°C: 47 hPa
Density at 20°C: 0.940 g/cm³
Solubility in /Miscibility with water: Not miscible or difficult to mix
Viscosity:
Dynamic at 20°C: 1 mPas
Solvent content:
Organic solvents: 97.0%

Section 10: Stability and Reactivity Data

Conditions to be avoided: No decomposition if used and stored according to specifications.
Dangerous reactions: No dangerous reactions known
Dangerous products of composition: None
Additional Information:
If stored longer than recommended and/or above recommended temperature, product may polymerize generating heat.

Section 11: Toxicological Information

Acute Toxicity:
LD/LC50 values that are relevant for classification:
99-97-8 N,N-dimethyl-p-toluidine
Oral: LD50: 500 mg/kg (rat)
Dermal: LD50: 3 mg/gm (rat)

Primary irritant effect:
On the skin: Irritant for skin and mucous membranes.
On the eye: No irritant effect

Sensitization toxicological information:
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:
Harmful
Irritant

Section 12: Ecological Information

General notes:
Water hazard class 2 (calculated according to VwVwS): hazardous for water.
Do not allow product to reach ground water, water bodies or sewage system.
Danger to drinking water if even small quantities leak into soil.

Section 13: Disposal Considerations

Product:

Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Small quantities can be polymerized with the matching system component(s) and the cured solid material can be disposed of with the regular garbage. Larger quantities must be disposed of following the regulations of the local authorities.

European waste catalog

11 01 98: other wastes containing dangerous substances

Uncleaned packagings:

Recommendation: Disposal must be made according to official regulations.

Section 14: Transport Information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)

ADR/RID-GGVS/E Class: 3 (F1) Flammable liquids.

Kemler Number: 339

UN-Number: 1247

Packaging Group: II

Label: 3

Designation of goods: 1247 Methyl Methacrylate Monomer, Stabilized, solution

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: 3

UN-Number: 1247

Packaging Group: II

EMS Number: F-E,S-D

Marine pollutant: No

Correct technical name: Methyl Methacrylate Monomer, Stabilized, solution

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: 3

UN/ID Number: 1247

Label: 3

Packaging Group: II

Correct technical name: Methyl Methacrylate Monomer, Stabilized, solution

Section 15: Other Regulatory Information

Designation according to EC guidelines:

The product has been classified and labeled in accordance with EC Directives/Ordinance on Hazardous Materials (GefStoffV)

Code letter and hazard designation of product:

Xn: Harmful

F: highly flammable

Hazard-determining components of labeling:

Methyl methacrylate

N,N-dimethyl-p-toluidine

Risk phrases:

11: high flammable
20/21/22: Harmful by inhalation, in contact with skin and if swallowed
33: danger of cumulative effects.
37/38: Irritating to respiratory system and skin.
43: May cause sensitization by skin contact.

Safety phrases:

9: Keep container in a well-ventilated place.
16: Keep away from sources of ignition – No smoking.
33: take precautionary measures against static discharges.
36/37: Wear suitable protective clothing and gloves.
43: In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

National regulations

Technical instructions (air):

Class: I
Share in %: 0-5

Class: NK
Share in %: > 90

Water hazard class:

Water hazard class 2 (calculated according to VwVwS): hazardous for water.

Section 16: Other Information:

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Relevant R-phrases

11: High flammable
23/24/25: Toxic by inhalation, in contact with skin and if swallowed
33: Danger of cumulative effects
37/38: Irritating to respiratory system and skin
43: May cause sensitization by skin contact
52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Last Updated: 10/19/11

Date Verified and Printed: 10/19/11

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Electron Microscopy Sciences be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Electron Microscopy Sciences has been advised of the possibility of such damages.