MATERIALS SAFETY DATA SHEET

SECTION 1 – PRODUCT IDENTIFICATION AND USE

PRODUCT IDENTIFIER: TECHNOVIT 4002 POWDER 11 10 27 & 11 10 29
PRODUCT USE: Resin for metallographic testing

DISTRIBUTOR'S NAME: MICRO STAR 2000 INC.
DISTRIBUTOR'S ADDRESS: 225 Bradwick Drive, Unit 21
Concord, Ontario
L4K 1K7

EMERGENCY PHONE NUMBER: 905-660-1754

SECTION 2 – COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERIZATION:

DESCRIPTION: Acrylic polymer on the basis of methyl methacrylate

DANGEROUS COMPONENTS:			
CAS: 94-36-0 EINECS: 201-545-9	dibenzoyl peroxide	Xi, E; R 2-7-36-43	0-5%
CAS: 84-61-7 EINECS: 201-545-9	dicyclohexyl phtlalate	Xi, E; R 2-36-43	0-5%

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

WHMIS: Not controlled under WHMIS (Canada)

SECTION 3 – HAZARD IDENTIFICATION

HAZARD DESIGNATION:
Xi Irritant

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.

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

SKIN CONTACT: Instantly wash with water, soap and rinse thoroughly. If skin irritation occurs, seek medical advise.

EYE CONTACT: Rinse opened eye for several minutes under running water and seek medical advise.

INGESTION: Initiate vomiting and consult a doctor.

SECTION 5 – FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING AGENTS: CO2, extinguishing powder or water jet spray. Fight larger fires with water jet or alcohol-resistant foam.

UNSUITABLE EXTINGUISHING MEDIA FOR SAFETY REASONS: Full water jet.

PROTECTIVE EQUIPMENT: No special measures required.

SPECIAL HAZARD CAUSED BY THE MATERIAL, ITS PRODUCTS OF COMBUSTION OF FLUE GASES: Formation of toxic gases is possible during heating or in case of fire.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Not required.

ENVIRONMENTAL PRECAUTION: No special measures required.

CLEANING METHOD: Collect mechanically. Dispose of in accordance with regulations.

ADDITIONAL INFORMATION: No dangerous materials are released.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Avoid dust formation.

EXPLOSIONS AND FIRES: Take precautionary measures against static discharges. In the event of fire, cool the endangered product with water.

STORAGE: Store dry and cool (not above 25℃).

SECTION 8 – ENGINEERING CONTROLS / PERSONAL PROTECTION

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

Components with critical values that require monitoring at the workplace:	
94-36-0 Dibenzoyl peroxide	
OES ()	Long term value: 5 mg/m3
13463-67-7 Titanium dioxide	
OES ()	Long term value: 10*4* mg/m3 *total inhalable dust ** respirable dust
84-61-7 Dicylohedxyl phthalate	
OES ()	Long-term value: 5 mg/m^3

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

PERSONAL PROTECTIVE EQUIPMENT:
GENERAL PROTECTIVE AND HYGIENIC MEASURS: Instantly remove any soiled and impregnated garments. Wash hands during breaks and at the end of the work.

RESPIRATORY EQUIPMENT: Not required.

SKIN PROTECTION: Protective gloves are recommended to avoid possible sensitization. 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 HEITGHTENED RISK OF INJURY (e.g. Laboratory) GLOVES MADE OF THE FOLLOWING MATERIAL ARE SUITABLE:
Butyl rubber, BR
Fluorocarbon rubber (Viton)
Nitrile rubber, NBR
Natural rubber, NR
Chloroprene rubber, CR

FOR THE PERMANENT CONTACT OF A MAXIMUM OF 15 MINUTES GLOVES MADE OF THE FOLLOWING MATERIAL ARE SUTABLE:
PVC or PE gloves.

EYE PROTECTION: Goggles.

BODY PROTECTION: Light weight protective clothing.

RESPIRATORY PROTECTION: Filtering half mask in case of dust formation

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

General Information:	
Form:	Powder
Colour:	White
Smell:	Odourless
Change in condition:	
Melting point/Melting range:	Not determined
Boiling point/Boiling range:	Not determined
Flash Point:	N/A
Self-inflammability:	Product is not selfigniting
Danger of explosion:	Product is not explosive
Density at 20 ºC:	2.560 g/cm³
Settled apparent density at 20 ºC:	900 kg/m³
Solubility in / Miscibility with Water:	Unsoluble
Solvent Content:	
Organic Solvents:	0.0%
Water:	0.1%
Solids content:	99.9%

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO BE AVOIDED: No decomposition if used and stored according to specifications.

DANGEROUS REACTIONS: No dangerous reactions known.

DANGEROUS PRODUCTS OF COMPOSTION: None

SECTION 11 – TOXICOLOGICAL INFORMATION

ACUTE TOXICITY:
PRIMARY IRRITANT EFFECTS:

SKIN: No irritant effects

EYES: No irritant effects.

SENSITIZATION: Sensitization possible by skin contact.

ADDITIONAL INFORMATION: The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparation as issued in the latest version: Irritant.

SECTION 12 – ECOLOGICAL INFORMATION

General Notes: Water hazard class 1 (calculated according to VwVwS): Slightly hazardous for water.
Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13 – DISPOSAL CONSIDERATIONS

ENVIRONMENTAL TOXICITY DATA: See regulatory information below.

WASTE DISPOSAL METHOD: In accordance with all local, state, and federal regulation.

CONTAINER DISPOSAL: In accordance with all local, state, and federal regulation.

SECTION 14 – TRANSPORT INFORMATION

Land Transport
ADR/RID-GGVS/E Class: - Not a hazardous material within the meaning of transport regulations.

Air Transport ICAO-TI and IATA-DGR:
ICAO/IATA Class: - Not a hazardous material within the meaning of transport regulations.

SECTION 15 – REGULATORY INFORMATION

DESIGNATION ACCORDING TO EC GUIDLINES: The product has been classified and labeled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV).

CODE LETTER AND HAZARD DESIGNATION OF PRODUCT: Xi irritant

HAZARD DETERMINING COMPONENTS OF LABELING: Benzoyl perioxide

RISK PHRASES:

43 May cause sensitization by skin contact.

SAFETY PHRASES:

24 Avoid contact with skin.
37 Wear suitable gloves.

WATER HAZARD CLASS: Water hazard class 1 (calculated according to VwVwS): Slightly 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.

RELEVENT R-PHRASES

2 Risk of explosion by shock, friction, fire or other sources of ignition.
36 Irritating to eyes.
43 May cause sensitization by skin contact.

SECTION 17 – PREPARATION OF MATERIAL SAFETY DATA SHEET

PREPARED BY: R. Dickertmann PHONE NUMBER: 905-660-1754 REVISED: July 24, 2008