# MALIC ACID (L-) CAS # 97676

A Special Carcinogen E Dermal Hazard I Neurotoxin

B Human Terato\Repro Haz F Corrosive J Suspect Carcinogen

C Highly Toxic G Eye Damage K Suspect Terato\Repro Haz

D Inhalation Hazard H STEL L Sensitizers

HAZARD INDEX . . . . . . . . . . . .

NFPA HAZARD CODES (H,F,R,O) 2 0 0

INHALATION RISK INDEX <1 - LC50

ROUTE OF EXPOSURE

skin Contact: Causes skin irritation.

skin Absorption: May be harmful if absorbed through the skin.

Inhalation: May be harmful if inhaled. Material is irritating to

mucous membranes and upper respiratory tract.

Ingestion: May be harmful if swallowed.

Multiple Routes: May cause cyanosis.

SIGNS AND SYMPTOMS OF EXPOSURE

To the best of our knowledge, the chemical, physical, and

toxicological properties have not been thoroughly investigated.

PHYSICAL CHARACTERISTICS

PHYSICAL STATE: Solid

SEGREGATION: SHELF # 1

STORAGE GROUP(S):

d - Organic Acid/Flammable/Toxic

WASTE CHARACTERISTIC HAZARD: TOXIC

INCOMPATIBILITIES:Bases, Oxidizing agents, Reducing agents, Alkali metals.

FIRE EXTINGUISHER: Water spray. Carbon dioxide, dry chemical powder, or

appropriate foam.

REACTIVE PROPERTIES

HANDLING: Do not breathe dust. Avoid contact with eyes, skin, and clothing.

Avoid prolonged or repeated exposure. STORAGE: Keep tightly closed.

GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION

EU ADDITIONAL CLASSIFICATION

Symbol of Danger: Xi

Indication of Danger: Irritant.

R: 36/37/38

Risk Statements: Irritating to eyes, respiratory system and skin.

S: 26 36

Safety Statements: In case of contact with eyes, rinse

immediately with plenty of water and seek medical advice. Wear

suitable protective clothing.

The information presented in the OPMSDS is intended as a synopsis of relative hazard characteristics for this chemical, for application within the UMass-Boston Chem/XL Laboratory Program. This information is derived from a wide range of sources documented in that program. While these sources are considered credible, the user is cautioned that the university cannot guarantee the accuracy nor accept responsibility for damages which may arise from errors, omissions, or the use of this information in any context other than intended. The user is strongly encouraged to seek additional information whenever feasible.