Material Safety Data Sheet

SECTION 1

Manufacturer's Name
NISSAN CHEMICAL INDUSTRIES, LTD.

Address
7-1, 3-chome, Kanda-Nishiki-cho,

City, State, and ZIP
Chiyoda-ku, Tokyo, Japan 101

Emergency Telephone No.
914-332-4745

Other Information
Calls
011-81-3-3296-8050

Signature of Person
Responsible for Preparation (Optional)

Date Prepared
06/10/92

Date Revised
11/02/93

SECTION 2 - HAZARDOUS INGREDIENTS/IDENTITY

Hazardous Component(s)
(Chemical & common name(s))
7-Butyrolactone
Dipropylene glycol monomethyl ether

OSHA TLY
n.a.
n.a.

ACGIH
n.a.
n.a.

Other Exposure Limits
TLD 0 5 g/kg 13
60-95

% (optional)
96-18-0

CAS NO.
34459-99-8

13 mouse 42 weeks

SECTION 3 - PHYSICAL & CHEMICAL CHARACTERISTICS

Boiling Point
204 °C

Specific Gravity (H₂O = 1)
1.13

Vapor Pressure (mmHg)
n.a.

Vapor Density (Air = 1)
n.a.

Solubility
Soluble in any portion

Reactivity in Water
Non reactive

Appearance and odor
Transparent, acetone like odor

Melting point
-44°C

SECTION 4 - FIRE & EXPLOSION DATA

Flash Point
98°C

Method Used
JIS K2265 (open cell)

Flammable Limits
Lower 2.0% Upper n.a.

Auto-Ignition Temperature
n.a.

Extinguisher Method
Carbon dioxide, dry chemicals, foam, water.

Special Fire Fighting Procedures
Fire fighters should wear self-contained breathing apparatus.

Unusual Fire and Explosion Hazards
Toxic fumes (oxide of carbon and nitrogen) may be evolved upon exposure to heat or open flame.
SECTION 5 - PHYSICAL HAZARDS (REACTIVITY DATA)

Stability Unstable [ ] Conditions to Avoid
Stable [X] Heat with strong alkali

Incompatibility (Materials to Avoid)

Strong alkali or oxidizers

Hazardous Decomposition Products
Oxide of carbon and nitrogen may be evolved when burning.

Hazardous Polymerization Will not Occur [X]

SECTION 6 - HEALTH HAZARDS

1. Acute
N.A.

2. Chronic
N.A.

Signs and Symptoms of Exposure

Skin and eyes are irritated.

Medical Conditions Generally Aggravated by Exposure
1By intermittent dosage to mouse for 42 weeks, a slight tumor was observed (γ-Butyrolactone).

Chemical Listed as Carcinogen or Potential Carcinogen
National Toxicology Program Yes [ ] I.A.R.C. Yes [ ] OSHA Yes [ ]

Emergency and First Aid Procedures
If eye contact occurs, flush well with plenty of water and get medical care.

ROUTES OF ENTRY

1. Inhalation Possible
2. Eyes Under a normal handling procedure, it is considered impossible.
3. Skin Possible
4. Ingestion Under a normal handling procedure, it is considered impossible.

SECTION 7 - SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES

Precautions to be Taken in Handling and Storage
To maintain the product quality, keep in a refrigerator at 5°C or lower.

Other Precautions
Keep out of fire sources.

Steps to be Taken in Case Material is Released or Spilled
Absorb spilled solvent with vermiculite, sand, rag or other inert absorbent and open doors for ventilation.

Waste Disposal
Methods (Consult federal, state, and local regulations)
Put in closed containers and dispose of as a chemical waste in accordance with local, state and federal regulations.

SECTION 8 - SPECIAL PROTECTION INFORMATION/CONTROL MEASURES

Respiratory Protection
Unnecessary

Ventilation Necessary
Local Exhaust Necessary
Mechanical (General) Special
Unnecessary
Other Not Specified

Protective Gloves Wear protective gloves. Eye Protection Wear safety goggles.

Other Protective Clothing or Equipment
Wear protective clothing to avoid direct skin contact.

Work/Hygienic Practices
Positive fresh air exhaust should be provided in a work area.

IMPORTANT
Do not leave any blank spaces. If required information is unavailable, unknown, or does not apply, so indicate.