

MATERIAL SAFETY DATA SHEET

☞ CHEMICAL PRODUCT & COMPANY IDENTIFICATION

CHEMICAL PRODUCT NAME

NAME OF MANUFACTURER

ADDRESS

NAME OF SECTION

TELEPHONE NUMBER

FAX NUMBER

EMERGENCY NUMBER

FOR OTHER INFORMATION : 294-23-8990 (Japan)

COMPOSITION (%)

30 % C 40

40 % C 50

1 % C 10

1 % C 5

1 % C 10

1 % C 10

☞ COMPOSITION/INFORMATION ON INGREDIENTS

GENERAL PRODUCT DESCRIPTION : Liquid (mixture)

INGREDIENTS AND COMPOSITION

CHEMICAL NAME

Polyamide

!A-Butyrolactone

2-Methoxy-1-Methyl Ethyl Acetate

Organosilan compound(s)

Photoinitiator

Proprietary Ingredient(s)

UN Class : Not applicable

UN number : Not applicable

PHYSICAL AND CHEMICAL HAZARDS

exceeding 74;æ(165 F)

FORM No. : YMU-15005-049

ISSUED DATE : Nov.19.2003

PAGE : 1/4

: HD-8800-AD10

: Hitachi Chemical DuPont MicroSystems, Ltd.

: 4-13-1Higashi-cho, Hitachi, Ibaraki, Japan

: Yamazaki R&D Center Mr.Ueno

: 294-23-8990 (Japan)

: 294-23-8992 (Japan)

: CHEMTREC, 800-424-9300 (within US, 24 hours)

703-527-3887 (outside US, 24 hours)

: 294-23-8990 (Japan) (24 hours)

CAS No. CHEMICAL

FORMULA

Confidential

96-48-0

108-65-6

Confidential

Confidential

Confidential

nausea and vomiting. Irritating to eyes, skin and mucous membrane.

☞ HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW : Flammable liquid

ADVERSE HUMAN HEALTH EFFECTS

ENVIRONMENTAL EFFECTS

☞ FIRST - AID MEASURES

*Polyamide*

*Bang Nguyen*  
*SUTA ASSO.*

*1/8/04*

INHALATION : Remove the victim from the contamination immediately to the fresh air. If breathing is  
SKIN CONTACT : Remove all contaminated clothing, shoes, socks from the affected areas as quickly as  
EYE CONTACT :Gently rinse the affected eyes with clean water for at least 15 minutes. Ask the victim to  
INGESTION

-  
C4H6O2  
C6H12O3  
-  
-  
-

: May form explosive mixture of vapor/air  
: Inhalation of high vapor concentrations causes headache,  
:  $\gamma$ -Butyrolactone is biodegradable.  
weak, irregular or has stopped, open his airway, loosen his collar and belt and administer artificial  
respiration. Keep the victim warm and quiet. And refer for medical attention.  
possible. Wash the affected areas under tepid running water using a mild soap.  
look up, down and side to side as you rinse in order to better reach all parts  
of eyes. Arrange for  
transport to the nearest medical facility for examination and treatment by a  
physician as soon as  
possible.

: Do not induce vomiting. If the victim is responsive, give him ca.250ml of  
water or milk.  
And refer for medical attention. Never give anything by mouth to someone who is  
unconscious or  
convulsing.

HD-8800-AD10 YMU-15005-049 #Y ACCIDENTAL RELEASE MEASURES  
or flame in area.

container using non-sparking tools.

Environmental precaution:

☐ Do not wash away into sewer, watercourses or river.

☐ In case of spills at clean room, wipe off by paper towel.

#Z HANDLING AND STORAGE

: HANDLING

STORAGE :

2-Methoxy-1-Methyl Ethyl Acetate : 541ppm (AIHA)

#I EXPOSURE CONTROL/PERSONAL PROTECTION

CONTROL PARAMETER :

ENGINEERING MEASURES:

Handle this material only in a totally enclosed system or local exhaust  
ventilation. Make available

emergency shower and eye wash in the work area.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION

FORM No. : YMU-15005-049

ISSUED DATE : Nov.19.2003

PAGE : 2/4

#X FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES : Flash point 74°C (165 °F)

EXTINGUISHING MEDIA : Dry chemical powder, carbon dioxide, foam, dry sand.

SPECIFIC HAZARDS WITH REGARD TO FIRE-FIGHTING MEASURES:

☐ Dry chemical powder, carbon dioxide or dry sand should be used for small  
fires.



- ELarge fires are best controlled by foam.
- ESolid streams may be ineffective.
- EApply water from a safe distance to cool and protect surrounding area. Move container from a fire area if it can be done without risk.
- EFirefighters should wear proper protective equipment and self-breathing apparatus.
- EEvacuate non-essential personnel to surrounding area of fire.
- Personal precaution:
- EEvacuate non-essential personnel to safe area. Shut off all sources of ignition; No flares, smoking
- EWear proper protective equipment.
- Method for cleaning up:
- EFor small spills, absorb spill with inert material (e.g., dry sand or earth) then, place in a chemical waste container using non-sparking tools.
- EFor large spills, dike for later disposal, cover spills with foam, then place in a chemical waste
- EShut off gas pilot and electrical igniters and other sources of ignition during use and until all vapors are gone.
- EAvoid release of this material into sewer or waterways.
- EIn case of handling, should be worn proper protective equipment to avoid contact and inhalation.
- EKeep container tightly closed and store at below -18 BC (-0.4 BF).
- EKeep away from heat, steam pipe and sunlight.

:  
:Chemical cartridge respirator with an organic vapor cartridge. Airline respirator for high vapor concentration.  
:Safety goggles or face shield. EYE PROTECTION  
HAND SKIN AND BODY PROTECTION : Chemical-resistant gloves, impervious boots and apron  
or full-body suit. Natural rubber or Butyl rubber are recommended.

HD-8800-AD10 YMU-15005-049 #\ PHYSICAL/CHEMICAL PROPERTIES

APPEARANCE : Red liquid(product)

SOLUBILITY IN WATER : Insoluble(product)

VAPOR CHEMICAL NAME BOILING

POINT (□□) PRESSURE (Pa)

204 (399 BF)

146 (295 BF)

21.3 (20□□)

490 (20□□)

fA-Butyrolactone

2-Methoxy-1-Methyl

Ethyl Acetate

#] PHYSICAL HAZARD(STABILITY AND REACTIVITY)

This material is considered a stable material under normal and anticipated storage and handling condition.

EXPLOSIVE LIMIT(IN AIR) FLASH POINT CHEMICAL NAME AUTOIGNITION TEMP

FORM No. : YMU-15005-049

ISSUED DATE : Nov.19.2003

PAGE : 3/4

DENSITY : no data(product)

ODOR : slightly aliphatic odor

VAPOR





Polyamide

CARCINOGENIC EFFECTS : fÁ-Butyrolactone is Group 3 in IARC ( The agent is not classifiable as to its

carcinogenic to humans.) and is not classified in NTP,ACGIH and OSHA.

Propyrene glycol mono methyl ether acetate is not classified in IARC, NTP, ACGIH and OSHA.

HD-8800-AD10 YMU-15005-049 #}|#U ECOLOGICAL INFORMATION

BIODEGRADABILITY:fÁ-Butyrolactone is biodegradable.

#}|#V DISPOSAL CONSIDERATION

#}|#W TRANSPORT INFORMATION

#}|#X REGULATORY INFORMATION

#}|#Y OTHER INFORMATION

NFPA Raring

Flammability

1

Health

0

FORM No. : YMU-15005-049

ISSUED DATE : Nov.19.2003

PAGE : 4/4

¥Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in

general careful matter as highly flammable liquids.

¥Do not dump into sewers ,on the ground or into any body of water.

¥Disposal should be in accordance with local, state or national legislation.

Reactivity

0

0 2 0

UN Class : Not applicable

UN number : Not applicable

¥This product is a combustible liquid. Keep away from strong alkalis, strong alkali metals, oxidizing materials and source of ignition.

¥Do not handle roughly and avoid dropping.

¥Follow all regulation in your local, state and federal laws and regulations.

¥Regulatory information with regard to this substances in your country or in your region should be examined by your own responsibility.

Ingredient

fÁ- Butyrolactone

2-Methoxy-1-Methyl

Ethyl Acetate

The information herein contained is given in good faith, but no warranty, express or implied,

is made. Please consult the Hitachi Chemical DuPont MicroSystems, Ltd., for further information.

This information contained herein is to the best of Hitachi Chemical DuPont MicroSystems

Company's Knowledge and belief, accurate and reliable as of the data issued. It is the user's

responsibility to determine the suitability of this information for the adoption of necessary safety precautions.

We reserve the right to revise MSDS periodically as new information becomes available.

REFERENCES:

1. International Chemical Safety Card.#0267 IPCS (WHO/FAO/UNEP)

2. Solvent Handbook, KOUDANSYA-Scientific(1990)
3. Technical Report of KYOWA HAKKOU KOUGYOU Ltd.
4. Registry of Toxic Effects of Chemical Substances NIOSH(2002 CD-ROM DB)
5. Raw Material Data Handbook, Vol.1, Organic Solvents(1974)
6. Dangerous Properties of Industrial Materials 7th Edition
7. Biodegradation and Bioaccumulation Data of Existing Chemicals Based on The CSCL Japan.

Edited by Chemical Inspection & Testing Institute Japan(1992)

INQUIRY OF THE INFORMATION CONTAINED HEREIN :

Hitachi Chemical DuPont MicroSystems, Ltd.

Yamazaki R&D Center Mr. Ueno

Tel.No.294-23-8990(Japan)

HD-8800-AD10 YMU-15005-049