

MATERIAL SAFETY DATA SHEET

Required under OSHA's Hazard Communication Standard 29 CFR 1910.1200

IDENTITY(As Used on Label and List)

LESY BOND B

Section I

Manufacturer's Name NITTA CORPORATION	Emergency Telephone Number 1-770-497-0212 (NITTA CORPORATION OF AMERICA, GA, USA)
Address(Number,Street,City,State,and ZIP Code) 4-26, SAKURAGAWA 4-CHOME, NANIWA-KU, OSAKA, 556-0022, JAPAN	Telephone Number for Information 81-6-6563-1225 (NITTA CORPORATION, OSAKA, JAPAN)
	Date Prepared 06. NOV. 2002
	Signature of Preparer(optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity ; Common Name(s))	CAS No.	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
Hydrogen Carboxylic acid; Formic Acid(F-A)	64-18-6	TWA 5ppm	TWA STEL 5ppm 10ppm (9.4mg/m3)(19mg/m3)	MSHA TWA 5ppm (9mg/m3)	76
				DOT Corrosive Material	
3-Methyl Phenol ; m-Cresol (m-C)	108-39-4	5ppm (Skin)	5ppm (22mg/m3)	MSHA TWA Skin 5ppm(22mg/m3)	9
				DOT Corrosive Material NOISH REL TWA 10mg/m3	
Polyamide	24993-04-2	None	None	None	15

Section III - Physical/Chemical Characteristics

Boiling Point	100.5°C(F-A) 202.8 °C(m-C)	Specific Gravity (H2O = 1)	1.22(F-A) 1.03(m-C)
Vapor Pressure(mm Hg)	33.1mmHg at 20°C(F-A) 0.1mmHg at 20°C(m-C)	Melting Point	8.4°C(F-A) 11.5 °C(m-C)
Vapor Density(AIR = 1)	1.6(F-A) 3.8(m-C)	Evaporation Rate (Butyl Acetate = 1)	1.4(F-A) 0.01(m-C)

Solubility in Water

Free(F-A), 1ml/40ml water at 25°C(m-C)

Appearance and Odor

Colorless or Yellowish Viscous Solution, Pungent, Phenolic Odor

Section IV - Fire and Explosion Hazard Data

Flash Point(Method Used) 68.9°C(F-A), 81°C(m-C) (Closed Cup)	Flammable Limits Vol%	(F-A) LEL 18 1.1	(m-C) UEL 57 1.35
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Extinguishing Media

Water Spray , Foam , Carbonic Acid Gas

Special Fire Fighting Procedures

Wear Rubber Gloves, Safety Goggles, Hose Mask or Poison Protect Mask for Acid Gas with Face Shield, Protective Clothing and self-contained Breathing Apparatus

Unusual Fire and Explosion Hazards

None under Normal Conditions. But F-A is easy to ignite by a little heating and m-C make the explosionable gas with air. Combustion Products may be Toxic.

Section V – Reactivity Data			
Stability	Unstable		Condition to Avoid
	Stable	x	

Incompatibility (Materials to Avoid)
 Oxidizable materials, organic acid, moisture

Hazardous Decomposition or Byproducts
 Combustion will product CO2 (and probably CO) and Nitrogen Oxides.

Hazardous Polymerization	May Occur		Conditions to Avoid
	Will Not Occur	x	

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation ?	Skin ?	Ingestion ?
	x	x	x

Health Hazards (Acute and Chronic)
 Eye ; Extremely Irritant
 Skin ; Extremely Irritant
 Toxic ; MLD(Rabbit) 239mg/kg (F-A)
 LD50 (Oral-Rat) 2.02 g/kg (m-C)

Carcinogenicity:	NTP ?	IARC Monographs?	OSHA Regulated?
	None	None	None

Signs and Symptoms of Exposure
 Dangerously caustic to skin. Extremely irritant to eyes, throat, skin.

Medical Conditions
 Generally Aggravated by Exposure (F-A)Chromic absorption has been reported to cause albuminuria, hematuria.
 (m-C)Chromic poisoning with renal and hepatic damage, nausea, vomiting, nervous disturbance may occur.

Emergency and First Aid Procedures
 In case of contact, immediately flush eyes or skin with plenty of water at least 15min. Call a physician. If swallowed, immediately vomit and then induce vomiting immediately by giving plenty of water(if possible, lime water). Call a physician. If inhaled,remove to fresh air, give oxygen. Call a physician.

Section VII – Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled
 Remove all sources of ignition. Cover contaminated place with neutraling chemicals(ex. soda ash, sodium carbonate) .
 Flush area with water.

Waste Disposal Method
 Burn in controlled incinerator or decompose in activated sludge type waste treatment plant.
 Dispose in accordance with Federal, State and Local Regulations.

Precautions to Be Taken in Handling and Storing
 Store in cool, dry, dark and well-ventilated place.
 Do not use near heat, sparks and flames. Keep the bottle closed when not in use.

Other Precautions
 Avoid contact with skin or eyes, breathing vapor or mist.
 Use after well-understanding of this hazard.

Section VIII – Control Measures

Respiratory Protection (Specify Type)
 Use adequate ventilation in working area

Ventilation	Local Exhaust	Special
	Mechanical(General)	Acceptable
id	Preferred	Preferred

Protective Gloves	Rubber Gloves	Eye Protection	Safety Goggles
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Other Protective Clothing or Equipment
 Protective Clothing, eye bath, mask

Work/Hygienic Practices
 Not Known