

MATERIAL SAFETY DATA SHEET

Required under OSHA's Hazard Communication Standard 29 CFR 1910.1200

IDENTITY(As Used on Label and List)

NLG ADHESIVE

Section I

Manufacturer's Name NITTA CORPORATION	Emergency Telephone Number 81-6-6563-1211(NITTA CORPORATION, OSAKA, JAPAN)
Address(Number,Street,City,State,and ZIP Code) 4-26, SAKURAGAWA 4-CHOME, NANIWA-KU	Telephone Number for Information 81-6-6563-1225(NITTA CORPORATION, OSAKA, JAPAN)
OSAKA, 556-0022, JAPAN	Date Prepared 19.OCT.2009
	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)
Polyurethane	—	None	None	None	20
2-Butanone : Methyl Ethyl Ketone (MEK)	78-93-3	TWA 200ppm	TWA STEL 200ppm 300ppm (590mg/m3)(885mg/m3)	MSHA-TWA 200ppm (590mg/m3)	20
				DOT Flammable Liquid NIOSH REL TWA 590mg/m3	
Acetic Acid,Ethyl Ester : Ethyl Acetate(E-A)	141-78-6	TWA 400ppm	TWA 400ppm 1440mg/m3	MSHA-TWA 400ppm 1440mg/m3	60
Eye,Skin : Irritant , Toxic (MEK)(E-A)				DOT Flammable Liquid	

Section III -Physical/Chemical Characteristics

Boiling Point	79.6 °C(MEK) 77 °C(E-A)	Specific Gravity (H2O = 1)	0.81(MEK) 0.90(E-A)
Vapor Pressure(mm Hg)	1mmHg at 108°C(Re) 95mmHg at 20°C(Me)	Melting Point	-86 °C(MEK) -82.4 °C(E-A)
Vapor Density(AIR = 1)	3.8(Re) 1.1(Me)	Evaporation Rate (Butyl Acetate = 1)	4.65(MEK) 5.25(E-A)
Solubility in Water	1ml/4ml Water at 20°C(MEK)	1ml/10ml Water at 25°C(E-A)	

Appearance and Odor

Colorless Viscous solution, acetone-like, ester-like odor

Section IV -Fire and Explosion Hazard Data

Flash Point(Method Used) -9°C(MEK) , -4°C(E-A) (Closed Cup)	Flammable Limits Vol.	LEL 1.7(MEK) 2.0(E-A)	UEL 11.4(MEK) 11.5(E-A)
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Extinguishing Media

Water Spray , Foam , Carbon Dioxide

Special Fire Fighting Procedures

Wear Rubber Gloves, Safety Goggles with Face Shield, Protective Clothing and self-contained Breathing Apparatus

Unusual Fire and Explosion Hazards

None under Normal Conditions except for Exposing to Heat or Flame.

Combustion Products may be Toxic.

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

Incompatibility (Materials to Avoid) Moisture, Strong Oxidizer

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

Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	×

Section VI – Health Hazard Data

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

Health Hazards (Acute and Chronic)
Eye ; Irritant (Rabbit)
Skin ; Irritant (Rabbit)
 Toxic ; LD50 (Oral-Rat) 6.86ml/kg (MEK)
 LD50 (Oral-Rat) 5600mg/kg (E-A)

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

Signs and Symptoms of Exposure
Excessive Exposure can result in Irritating to Eyes and Skin.

Medical Conditions
Generally Aggravated by Exposure
Headache, Drowsy, Nausea, Visual Disturbance as Center, Autonomic Nerve Disturbances.

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, induce vomiting immediately by giving two glasses of water and sticking finger down throat. Call a physician. If inhaled,removeto fresh air.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.Reduce vapors by ventilation. Take up with sand or absorbent materials.
Sweep or shovel into approved disposal container. Flush area with water.

Waste Disposal Method
Incinerate only in difficially approved incinerator
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. Avoid moisture,
keep the bottle closed when not in use.

Other Precautions
Avoid contact with skin and eyes, breathing vapor or mist.

Section VIII – Control Measures

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

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

Protective Gloves Eye Protection
Rubber Gloves
Safety Goggles

Other Protective Clothing or Equipment
Protective clothing

Work/Hygienic Practices
Not Known