

MATERIAL SAFETY DATA SHEET

Product Name: NLR 403

Date Prepared: 6-24-02

SECTION I- PRODUCT AND COMPANY INFORMATION

Manufacturer:

Dunwell New Logic (Asia Pacific) Ltd.
8 Wang Lee Street
Yuen Long Industrial Estate
Hong Kong

Telephone: (852) – 23910371

NFPA

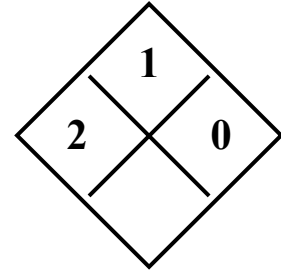
Codes:

Health: 2

Fire: 1

Reactivity: 0

Other: NA



SECTION II – MATERIAL COMPOSITION

Ingredient	CAS #	% by weight	OSHA PEL	ACGIH TLV
Citric Acid	77-92-9	< 95	NA	NA
Polyphosphoric Acids, Sodium Salts	68915-31-1	<10	NA	NA

SECTION III – PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point: No information
Vapor Pressure: No information
Vapor Density: No information
Solubility in Water: Soluble in water
Appearance: White granules

Density: 1.51
Melting Point: 105oC
Evaporation Rate: No information
pH of 0.1N solution: 2.2 (approx.)

SECTION IV – FIRE AND EXPLOSION DATA

As with most organic solids, fire is possible at elevated temperatures or by contact with ignition source.

Flash Point: N/A

Autoignition temperature: 1011oC

Flammability Limits

Lower Explosive Limit: N/A

Upper Explosive Limit: N/A

Special Fire Fighting Procedures: Water spray, dry chemical, foam, carbon dioxide

Unusual Fire and Explosion Hazards: None

SECTION V – REACTIVITY DATA

Stability: Product is stable

Incompatibility (Materials to Avoid): Reacts with alkaline materials and metal nitrates. Will corrode copper, zinc, aluminum and their alloys.

Hazardous polymerization: Will not occur

Hazardous decomposition: Carbon dioxide and carbon monoxide.

SECTION VI – HEALTH HAZARD DATA

Emergency Overview: Irritation to eyes, skin and respiratory tract.

Oral ingestion may cause nausea, diarrhea and/or vomiting.

Primary Entry Routes: Skin contact, Ingestion, Inhalation of dust.

Potential Health Effects:

Eyes: May cause severe irritation.

Skin: May cause irritation. Symptoms include redness, itching and pain.

Inhalation: Breathing of dust may irritate the respiratory system causing coughing and shortness of breath.

Ingestion: May cause nausea, diarrhea and/or vomiting as well as irritation of the throat and esophagus.

Chronic/Carcinogenicity

NTP: Not Listed

OSHA: Not Listed

IARC: Not Listed

Medical Conditions Generally Aggravated by Exposure: Skin disorders or eye problems.

Impaired liver, kidney or respiratory function may be more susceptible to the effects.

Emergency First Aid Procedures

Eyes: Flush eyes with water immediately for at least 15 minutes.
GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

Skin: Immediately wash with water. Remove contaminated clothing and footwear and wash before reuse. GET MEDICAL ATTENTION IF IRRITATION PERSISTS.

Ingestion: Induce vomiting as directed by medical personnel. Rinse mouth with cool water. Drink several large glasses of water. Do not give an unconscious person anything to eat or drink. GET IMMEDIATE MEDICAL ATTENTION

Inhalation: Remove person to fresh air. If breathing is difficult then get immediate medical attention. If respiration stops then administer CPR. GET MEDICAL ATTENTION.

SECTION VII – HANDLING AND STORAGE PRECAUTIONS

When handling this product use appropriate personal protective equipment.

Personal Protection

Eyes/Face: Use chemical safety goggles plus full face shield to protect from splashing.

Skin: Wear chemical resistant gloves, lab coat and boots to avoid contact.

Respiratory: Do not breathe dust. Use approved respirator if required.

Handling: Eye wash and safety shower should be located close to chemical exposure area. Provide local exhaust.

Storage: Store in a cool, dry, well ventilated location in suitable, closed containers.

SECTION VIII – DISPOSAL INFORMATION / SPILL OR LEAK PROCEDURES

In Event of Spill or Release of Material, stop discharge and contain runoff by diking with appropriate inert absorbent. Sweep up material for recovery or disposal. If the spill is significant then contact the local government authority.

Environmental Effects: May be harmful to aquatic life.

Neutralizing Chemicals: Dilute with plenty of water to pH of at least 6.

Waste disposal: Unused material is corrosive. Dispose of waste material at an approved landfill site in accordance with local, state, and federal regulations. Be aware that containers may remain contaminated with residue of chemical unless properly rinsed.

OTHER

The information and recommendations contained in this Material Safety Data Sheet have been compiled from sources believed to be reliable and represent the best opinion on the subject as of the date on this sheet. Since the use of this information and the conditions of the use of the product are not under the direct control of New Logic Research, it is the user's obligation to determine conditions of safe use of the product.