

Lunar Pellet

Material Safety Data Sheet Date Prepared: 7/20/2009

1. CHEMICAL PRODUCT AND COMPANY DESCRIPTION

Numerator Technologies Inc.
10206 Clubhouse Drive
Bradenton, FL 34202
USA

Emergency Phone Numbers:

For emergencies involving a spill, leak, fire, exposure or accident, contact CHEMTREC (800-424-9300 within the United States or 703-527-3887 for international collect calls).

For Product Information: 1.941.807.5333 or www.numeratortech.com

Chemical Name or Synonym: Non-ionic surfactant blend pellet, soil wetting agent pellet

C.A.S. Number: Mixture – no single C.A.S. number available.

2. COMPOSITION/INFORMATION ON INGREDIENTS

Exposure Limits

Component	CAS Reg Number	Weight%	OSHA/PEL	ACGIH/TLV
Non-ionic surfactant blend	Proprietary*	90	Not established Not established	Not established Not established

* Trade secret as allowed by 29 CFR 1910.1200-48

3. HAZARDS IDENTIFICATION

A. Emergency Overview:

Physical Appearance and Odor: Hazy, honey-colored solid, mild aromatic odor

Warning Statements: CAUTION – MAY CAUSE EYE IRRITATION!

B. Potential Health Effects:

Primary Route of Entry: Routes of entry for solids include eye and skin contact and ingestion.

Effect of Overexposure:

Acute Eye:	Irritant. Can cause redness, irritation or tissue damage with prolonged contact.
Acute Skin:	Slightly irritating. May cause redness or irritation with prolonged contact.
Acute Inhalation:	Inhalation is not an expected route of exposure. Mists may cause upper respiratory tract irritation.
Acute Ingestion:	May cause gastrointestinal irritation, nausea, diarrhea, or vomiting.
Chronic Effects:	This product does not contain any ingredient designated by IARC, NTP, ACGIH or OSHA as probable or suspected human carcinogens.

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4. FIRST AID MEASURES

EYE CONTACT: DO NOT RUB EYES. Immediately flush eyes with large amounts of water for 15 minutes lifting the lower and upper lids. Seek medical attention if necessary.

SKIN CONTACT: Remove contaminated clothing and immediately wash affected area with large amounts of water for at least 5 minutes. If irritation or redness persists, seek medical attention as needed.

IF SWALLOWED: Give large amounts of water to drink. Seek medical attention if necessary. Induce vomiting only upon advice from a physician. Never give anything by mouth if victim is unconscious or having convulsions.

INHALATION: Inhalation is not an expected route of exposure. Move individual to fresh air and check to assure adequate respiration. Seek medical attention if necessary.

Medical Conditions Possibly Aggravated by Exposure: Skin contact may aggravate existing skin conditions/diseases.

Notes to Physician: All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. Treat symptomatically. No specific antidote is available.

5. FIRE FIGHTING MEASURES

Flash Point: Not established

Method Used:

Flammability Limits (vol/vol%): Not established

Extinguishing Media: Water spray, dry chemical, carbon dioxide, and/or foam are recommended. Use water spray to cool containers exposed to fire.

Special Fire Fighting Procedures: Firefighters should wear NIOSH/MSHA approved self-contained breathing apparatus (SCBA) and full protective clothing.

Unusual Fire and Explosion Hazards: Urea may form explosive mixtures if mixed with strong acids (nitric/perchloric). Heating urea above 270°F decomposes biuret, ammonia and nitrogen oxides. Short-term exposures to smoke and gases may lead to irreversible lung injury without early signs and symptoms.

Hazardous Decomposition Materials (Under Fire Conditions): Oxides of carbon, nitrogen and hydrogen.

6. ACCIDENTAL RELEASE MEASURES

Cleanup and Disposal of Spill: If material is in pellet form, shovel or otherwise collect into recovery drums. If material is in liquid form, control the spill with dykes and absorb with absorbent pads or booms. If necessary, apply granular or loose sorbent to spill. When adsorbed, sweep or otherwise collect into recovery drums and dispose of properly. A comprehensive spill response plan should be developed and implemented. See Waste Disposal information in Section 13.

Environmental and Regulatory Reporting: Do not flush to drain. Spills may be reportable to the National Response Center (800-424-8802) and to state and/or local agencies.

7. HANDLING AND STORAGE

Minimum/Maximum Storage Temperature: Not established.

Handling: Avoid direct or prolonged contact with eyes and skin. Avoid prolonged contact with mists or particulates created during spray applications.

Storage: Store in tightly closed containers. Store in an area that is dry, well-ventilated, away from ignition sources, and away from incompatible materials. See Section 10 for Stability and Reactivity information.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Introductory Remarks:	These recommendations provide general guidance for handling this product. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. While developing safe handling procedures, do not overlook the need to clean equipment and piping systems for maintenance and repairs. Waste resulting from these procedures should be handled in accordance with Section 13: Disposal Considerations.
Exposure Guidelines:	No exposure limits were found for this product or any of its ingredients.
Engineering Controls:	When engineering controls are mandated by use conditions or a potential for exposure exists, minimize exposure to employees with general area dilution or exhaust ventilation.
Respiratory Protection:	When work conditions are such that aerosols or mists may be generated or present, use a suitable NIOSH/MSHA approved respirator. Under normal conditions with adequate ventilation, no protection is necessary.
Eye/Face Protection:	Wear appropriate protective safety goggles/glasses as described in 29 CFR 1910.133. A full-face shield and eyewash station are recommended.
Skin Protection:	Skin contact should be minimized through use of appropriate clothing and suitable long-sleeved clothing (i.e., shirts and pants). Consideration must be given both to durability as well as permeation resistance. USDA accepted Nitrile (CFR-20) or neoprene rubber (CFR-21) gloves are recommended.
Work Practice Controls	Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material.

1. Do not store, use, and/or consume food, beverages, tobacco products, or cosmetics in area where this material is stored.
2. Wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics, or using the toilet.
3. Wash exposed skin promptly to remove accidental splashes of contact with this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical properties here represent typical properties of this product. Contact the business area using the Product Information phone number in Section 1 for exact specifications.

Physical Appearance:	Hazy, honey-colored solid
Odor:	Mild aromatic
Specific Gravity:	1.065 – 1.085 g/ml
Water Solubility:	Soluble
Melting Point:	> 130°C
Vapor Density (air = 1):	> 1

10. STABILITY AND REACTIVITY

Chemical Stability: This material is stable under normal handling and storage conditions described in Section 7.

Conditions to be Avoided: Keep away from heat, sparks and open flames.

Materials/Chemical to be voided: Avoid contact with strong oxidizing agents.

The following Hazardous Decomposition Products might be Expected:

Decomposition Type: Thermal Oxides of carbon, nitrogen and hydrogen – some intermediate decomposition products above the melting point may include ammonia, biuret, triuret, cyanuric acid and ammeline.

Hazardous Polymerization: Will not occur

Avoid the Following to Inhibit

Hazardous Polymerization: N/A

11. TOXICOLOGICAL INFORMATION

Acute Eye Irritation: The following data is for similar or related products.

Toxicological Information and Interpretation: Eye – eye irritation, rabbit: Slightly irritating.

Acute Skin Irritation: The following data is for similar or related products.

Toxicological Information and Interpretation: Skin – skin irritation, rabbit: Slightly irritating.

Acute Dermal Toxicity:

Toxicological Information and Interpretation: No data available.

Acute Respiratory Irritation:

Toxicological Information and Interpretation: No data available.

Acute Inhalation Toxicity:

Toxicological Information and Interpretation: No data available.

Acute Oral Toxicity: The following data is for similar or related products.

Toxicological Information and Interpretation: LD₅₀ - male rats: 4000 mg/kg; female rats: 2080 mg/kg.

Chronic Toxicity:

Toxicological Information and Interpretation: No data available.

12. ECOLOGICAL INFORMATION

Ecotoxicity Information: No data available

Environmental Fate Information: No data available

Chemical/Physical Information: No data available

Waste Disposal Method: Dispose of wastes in a manner consistent with federal, state, and local regulation.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method: Chemical additions, processing or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate or inappropriate. Please be advised that state and local requirements for waste disposal may be more restrictive or different from federal laws and regulations. All recovered materials should be packaged, labeled, transported, and disposed or reclaimed in conformance with applicable laws and regulations and good industrial hygiene practices. Consult state and local regulations regarding the proper disposal of this material.

14. TRANSPORTATION INFORMATION

US Department of Transportation Shipping Classification: Cleaning compound NOI
Hazard Class: None – Not regulated

15. REGULATORY INFORMATION

Inventory Status:

Inventory	Status
UNITED STATES (TSCA)	Y
CANADA (DSL)	Y
EUROPE (EINECS/ELINCS)	Y
AUSTRALIA (AICS)	Y
JAPAN (MITI)	N
SOUTH KOREA (KECL)	N

Y: All ingredients are on the inventory.

E: All ingredients are on the inventory or exempt from listing.

P: One or more ingredients fall under the polymer exemption or are on the no longer polymer list. All other ingredients are on the inventory or exempt from listing.

N: Not determined or one or more ingredients are not on the inventory and are not exempt from listing.

FEDERAL REGULATIONS:

Inventory Issues: All functional components of this product are listed on the TSCA inventory.

SARA Title III Section 313: This product contains the following material regulated under SARA Title III Section 313: Glycol ethers (per the current EPA definition) at a level estimated to be < 4%.

SARA Title III Hazard Classes:

Fire Hazard	NO
Reactive Hazard	NO
Release of Pressure	NO
Acute Health Hazard	NO
Chronic Health Hazard	NO

OTHER FEDERAL REGULATIONS:

FDA Status: N/A

FIFRA Status: N/A

STATE REGULATIONS: This product may contain trace amounts of the following materials that are regulated under

California Proposition 65:

Ingredient Cancer Reprod. No Sig. Risk Lvl. RPI

List List (ug/day)

Ethylene Oxide Y Y 2 ND

16. OTHER INFORMATION

National Fire Protection Association Hazard Ratings – NFPA (R):

1 Health Hazard Rating -- Slight
0 Flammability Rating -- Slight
0 Reactivity Rating -- Minimal
B Personal Protection

National Paint and Coating Hazardous Materials Identification System - HMIS(R):

1 Health Hazard Rating -- Slight
1 Flammability Rating -- Slight
0 Reactivity Rating -- Minimal
B Personal Protection

Reason for Revisions: Company location change. This MSDS replaces the December 8, 2003, MSDS.

Key Legend Information:

ACGIH American Conference of Governmental Industrial Hygienists
OSHA Occupational Safety and Health Administration
TLV Threshold Limit Value
PEL Permissible Exposure Limit
TWA Time Weighted Average
STEL Short-Term Exposure Limit
NTP National Toxicology Program
IARC International Agency for Research on Cancer
ND Not determined

Disclaimer:

While the information and recommendations set forth herein are believed to be accurate, we make no warranty with respect hereto and disclaim all liability from reliance thereon.

End of MSDS Document