SAFETY DATA SHEET

N-PACT® 26-0-0



Section 1. Identification

Product identifier : N-PACT® 26-0-0

Product code : 10033840

: 290 SDS# **Product type** : Liquid.

Relevant identified uses of the substance or mixture and uses advised against

Identified uses

Fertilizer.

Uses advised against

Not available.

: LOVELAND PRODUCTS, INC. Supplier's details

P.O. Box 1286

Greeley, CO 80632-1286

Telephone no. : 1-888-574-2878 (Customer Service)

Email : retail-SDS2@nutrien.com

Emergency telephone

number (with hours of

operation)

: CHEMTREC: 1-800-424-9300 (24 hrs)

Medical Emergencies: 1-866-944-8565 (24 hrs)

Section 2. Hazards identification

OSHA/HCS status

: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture : Not classified.

GHS label elements

Hazard pictograms : Not applicable. Signal word : No signal word.

Hazard statements : No known significant effects or critical hazards.

Precautionary statements

: Read label before use. Keep out of reach of children. If medical advice is needed, have General

product container or label at hand.

Prevention : Not applicable. : Not applicable. Response **Storage** : Not applicable. **Disposal** : Not applicable. Hazards not otherwise

classified

: None known.

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Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
urea	<45	57-13-6
triazone	<45	7098-14-8

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15

minutes. Get medical attention if irritation occurs.

Inhalation : Remove person to fresh air and keep comfortable for breathing. If exposed person is

not breathing, give artificial respiration or oxygen applied by trained personnel. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under

medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and

shoes. Get medical attention if symptoms occur.

Ingestion: Wash out mouth with water. If material has been swallowed and the exposed person is

conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : May cause mild eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact: May cause slight transient irritation.

Ingestion : Over-exposure by ingestion is unlikely under normal working conditions. No known

significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact : Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

redness

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training.

Decontamination measures may be necessary. Personnel and equipment must be

checked and decontaminated prior to leaving the area.

See toxicological information (Section 11)

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Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media

: Non-flammable. Material will not burn. Use an extinguishing agent suitable for the

surrounding fire.

: None known.

Specific hazards arising from the chemical

Hazardous thermal decomposition products

: In a fire or if heated, a pressure increase will occur and the container may burst.

 Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides

ammonia

Special protective actions for fire-fighters

: No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Contain and collect the water used to fight the fire for later treatment and disposal.

Special protective equipment for fire-fighters

: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders

: If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions

: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spill

: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill

: Stop leak if without risk. Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.

Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

Section 7. Handling and storage

Precautions for safe handling

Protective measures

: Read label before use. Apply this product only as specified on the label. Do not handle until all safety precautions have been read and understood. Put on appropriate personal protective equipment (see Section 8).

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Section 7. Handling and storage

Advice on general occupational hygiene

: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep from freezing. See Section 10 for incompatible materials before handling or use. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

None.

Biological exposure indices

No exposure indices known.

Appropriate engineering controls

Environmental exposure controls

- : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Contact your personal protective equipment supplier to verify the compatibility of the equipment for the intended purpose.

Hygiene measures

: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing.

Eye/face protection

: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with sideshields.

Skin protection

Hand protection

: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection

: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection

: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection

: Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

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Section 8. Exposure controls/personal protection

For U.S. work sites where respiratory protection is required, ensure that a respiratory protection program meeting 29 CFR 1910.134 requirements is in place.

Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

Appearance

Physical state : Liquid.

Color : Blue to green. [Light] Odor : Amine-like. [Slight] **Odor threshold** : Not available. pΗ 8.77 to 9.77 : Not available. **Melting point/freezing point**

Boiling point, initial boiling point, and boiling range

: 100°C (212°F)

Flash point : [Product does not sustain combustion.]

Flammability : Not available. Lower and upper explosion : Not available.

limit/flammability limit

Vapor pressure

	Vapor Pressure at 20°C (68°F)		Vapor	pressure at	50°C (122°F)	
Ingredient name	mm Hg	kPa	Method	mm Hg	kPa	Method
Water	23.8	3.2				

Relative vapor density : Not available. : 1.19 to 1.21 Relative density **Bulk density** : 9.93 to 10.1 lb/gal

Solubility in water Partition coefficient: n-

octanol/water

: Not applicable.

: Soluble.

Auto-ignition temperature

: Not available. **Decomposition temperature** : Not available. : Not available.

Particle characteristics

Viscosity

Median particle size : Not applicable.

Section 10. Stability and reactivity

Reactivity : No specific test data related to reactivity available for this product or its ingredients.

Chemical stability : The product is stable.

Possibility of hazardous reactions

: If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air.

Conditions to avoid Keep away from heat and direct sunlight. Keep from freezing. Keep away from incompatible materials.

Incompatible materials : Strong oxidizing materials, strong acids, halogenated compounds, copper, zinc and their alloys, including brass, bronze and galvanized materials. Contact your sales

representative or a metallurgical specialist to ensure compatibility with your equipment.

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Section 10. Stability and reactivity

Hazardous decomposition products

: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
urea	LD50 Oral	Rat	8471 mg/kg	-

Conclusion/Summary

: No known significant effects or critical hazards.

Irritation/Corrosion

Not available.

Conclusion/Summary

Skin : May cause slight transient irritation.

Eyes : May cause mild eye irritation.

Respiratory : No known significant effects or critical hazards.

Sensitization

Not available.

Conclusion/Summary

Skin : No known significant effects or critical hazards. Respiratory : No known significant effects or critical hazards.

Mutagenicity Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Carcinogenicity Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Reproductive toxicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Not available.

Conclusion/Summary : No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Not available.

Aspiration hazard

Not available.

Information on the likely routes of exposure

: Dermal contact. Eye contact.

Potential acute health effects

Eye contact : May cause mild eye irritation.

Inhalation : No known significant effects or critical hazards.

Skin contact : May cause slight transient irritation.

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Section 11. Toxicological information

Ingestion : Over-exposure by ingestion is unlikely under normal working conditions. No known

significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following:

redness watering

Inhalation : No specific data.

Skin contact: Adverse symptoms may include the following:

redness

Ingestion : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate

: See above.

effects

Potential delayed effects: See below.

Long term exposure

Potential immediate

: See above.

effects

Potential delayed effects : See below.

Potential chronic health effects

Not available.

Conclusion/Summary
 No known significant effects or critical hazards.
 Carcinogenicity
 No known significant effects or critical hazards.
 Mutagenicity
 No known significant effects or critical hazards.
 Reproductive toxicity
 No known significant effects or critical hazards.
 No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	(3	Dermal (mg/kg)	10	(vapors)	Inhalation (dusts and mists) (mg/ I)
urea	8471	N/A	N/A	N/A	N/A

Other information : Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
urea	Acute EC50 6573.1 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute EC50 3910000 μg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
	Acute LC50 22.5 ppt Fresh water	Fish - Oreochromis mossambicus - Young	96 hours
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days

Section 12. Ecological information

Conclusion/Summary

: Apply this product only as specified on the label. May be harmful to the environment if released in large quantities. Excessive nutrient runoff to a body of water may result in eutrophication.

Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
urea	-	-	Readily

Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
urea	<-1.73	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Other adverse effects

: No known significant effects or critical hazards.

Section 13. Disposal considerations

Disposal methods

: Follow disposal instructions on label. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Triple rinse containers with water and add the rinse water to the spray tank. Do not reuse containers for any purpose. Disposal should be in accordance with applicable regional, national and local laws and regulations. Recycling decontaminated containers is the best option of container disposal. The Agricultural Container Recycling Council (ACRC) operates the national recycling program. To contact your state and local ACRC recycler visit the ACRC web page at http://www.acrecycle.org/. Do not contaminate water, food or feed by storage or

Section 14. Transport information

	DOT Classification	TDG Classification	IMDG	IATA
UN number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
UN proper shipping name	-	-	-	-
Transport hazard class(es)	-	-	-	-
Packing group	-	-	-	-
Environmental hazards	No.	No.	No.	No.

Special precautions for user : Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

Transport in bulk according : Not available. to IMO instruments

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Section 15. Regulatory information

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

Australia : Not determined.

Canada : At least one component is not listed in DSL but all such components are listed in NDSL.

China : Not determined.

Eurasian Economic Union : Russian Federation inventory: Not determined.

: Japan inventory (CSCL): Not determined. **Japan**

Japan inventory (ISHL): Not determined.

New Zealand : Not determined. **Philippines** : Not determined. Republic of Korea : Not determined.

Taiwan : All components are listed or exempted.

Thailand : Not determined. **Turkey** : Not determined.

United States : All components are active or exempted. : All components are listed or exempted. **Viet Nam** U.S. Federal regulations : TSCA 4(a) final test rules: biuret

TSCA 8(a) CDR Exempt/Partial exemption: Not determined

Clean Water Act (CWA) 311: ammonia

Clean Air Act Section 112

(b) Hazardous Air **Pollutants (HAPs)** : Listed

Clean Air Act Section 602

Class I Substances

: Not listed

Clean Air Act Section 602

Class II Substances

: Not listed

DEA List I Chemicals

(Precursor Chemicals)

: Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

SARA 302/304

Composition/information on ingredients

			SARA 302 TPQ		SARA 304 RQ	
Name	%	EHS	(lbs)	(gallons)	(lbs)	(gallons)
ammonia	0.1 - 1	Yes.	500	-	100	-

Section 15. Regulatory information

: 51323.3 lbs / 23300.8 kg [5129.5 gal / 19417.3 L]

SARA 311/312

Classification : Not applicable.

State regulations

Massachusetts : None of the components are listed. **New York** : None of the components are listed. **New Jersey** : None of the components are listed. **Pennsylvania** : None of the components are listed.

California Prop. 65

MARNING: This product can expose you to chemicals including arsenic, which is known to the State of California to cause cancer, and cadmium, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

Section 16. Other information

History

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Key to abbreviations

: ATE = Acute Toxicity Estimate BCF = Bioconcentration Factor

GHS = Globally Harmonized System of Classification and Labelling of Chemicals

IATA = International Air Transport Association

IBC = Intermediate Bulk Container

IMDG = International Maritime Dangerous Goods

LogPow = logarithm of the octanol/water partition coefficient

MARPOL = International Convention for the Prevention of Pollution From Ships, 1973

as modified by the Protocol of 1978. ("Marpol" = marine pollution)

N/A = Not availableSGG = Segregation Group **UN = United Nations**

Procedure used to derive the classification

Not classified.

▼ Indicates information that has changed from previously issued version.

Notice to reader

Supply chain partners must ensure they pass this SDS, and all other relevant safety information to their customers.

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Section 16. Other information

GUIDELINES. THE SUPPLIER DOES NOT WARRANT THE MERCHANTABILITY OF THE MATERIAL OR THE FITNESS OF THE MATERIAL FOR ANY PARTICULAR USE AND ASSUMES NO RESPONSIBILITY FOR INJURY OR DAMAGE CAUSED DIRECTLY OR INDIRECTLY BY OR RELATED TO THE USE OF THE MATERIAL.

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