



Safety Data Sheet

PETZ ALL

SECTION 1. IDENTIFICATION

Product Identifier PETZ ALL
(UPC: 6 28331 60130 9, 6 28331 60129 3)

Other Means Of Identification Urea

Recommended Use De-Icing

Restrictions on Use Not for Ingestion

Initial Supplier Identifier NSC Minerals Ltd.
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Emergency Telephone Number 1-306-934-6477 / 1-888-668-7258

SECTION 2. HAZARD IDENTIFICATION

Classification Not classified as a dangerous substance or mixture according to the Globally Harmonized System (GHS)

Label Elements Keep out of reach of children. Harmful if swallowed. Avoid skin and eye contact.

Label Other Pictograms & Signal Words Not Applicable.

Other Hazards Handling and/or processing of this material may generate a dust which can cause mechanical irritation of the eyes, skin, nose and throat.

SECTION 3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance/Mixture Multi-constituent substance

INGREDIENT NAME	% (W/W)	CAS NO.
Urea	>98%	57-13-6

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

There are no additional ingredients present which, which the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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

Other Identifiers Eco-Friendly

SECTION 4. FIRST AID MEASURES

4.1 FIRST AID BY ROUTE OF EXPOSURE

General If medical advice is needed, have product container or label at hand.

Inhalation Remove person to fresh air. No known significant effects. Seek medical attention for any signs of wheezing and/or breathing difficulties. For additional advice call the medical emergency number on this SDS or your poison center or medical provider.

Skin Contact No known significant effects. Rinse the affected areas with water. Remove contaminated clothing, jewelry, and shoes. Wash/clean items before reuse. Seek medical attention for persistent skin pain or irritation. For additional advice call the medical emergency number on this SDS or your poison center or doctor.

Eye Contact	May cause irritation due to mechanical action. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. If possible, remove contact lenses being careful not to cause additional eye damage. Get medical attention if irritation occurs.
Ingestion	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

	<u>Potential Acute Health Effects</u>	<u>Over-Exposure Signs/Symptoms</u>
Eye Contact	No known significant effects or critical hazards.	No specific data. May cause irritation due to mechanical action.
Inhalation	No known significant effects or critical hazards.	No specific data. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin Contact	No known significant effects or critical hazards.	No specific data. Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.
Ingestion	No known significant effects or critical hazards.	No specific data. May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. 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. For professional, multilingual, medical support, in case of medical emergencies involving Agrium products, telephone the Agrium global 24 hour Emergency Number: 1-303-389-1653
Specific Treatments	No Specific Treatment. If necessary, veterinary advice may be obtained by calling the Medical Emergency number in Section 1.
Protection of First-Aiders	No action shall be taken involving any personal risk or without suitable training. Mouth to mouth resuscitation of oral exposure is not recommended. First-Aiders with contaminated clothing should be properly decontaminated.
See toxicological information (Section 11)	

SECTION 5. FIRE-FIGHTING MEASURE

5.1 EXTINGUISHING MEDIA

Suitable Extinguishing Media	Not Flammable. Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Media	None known.

5.2 SPECIFIC HAZARDS ARISING FROM PRODUCT

Hazardous Thermal Decomposition Products Material will not burn. Undergoes thermal decomposition at elevated temperatures to produce solid cyanuric acid and release toxic and combustible gases (ammonia, carbon dioxide, and oxides of nitrogen).

5.3 SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

Fire-fighting Instructions Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

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

Other Information Incompatible with halogens. If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air. Contain and collect the water used to fight the fire for later treatment and disposal.

SECTION 6. ACCIDENTAL RELEASE MEASURE

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

Non-Emergency Personnel No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Put on appropriate personal protective equipment.

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".

6.2 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 environmental pollution (sewers, waterways, soil or air).

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING-UP

For Containment Contain and collect as any solid. Do not allow into basements or confined areas or dispose of in drains or water courses or where ground or surface waters may be affected.

Methods for Cleaning Up Recover the product by vacuuming, shovelling or sweeping in a designated, labelled waste container. If uncontaminated, recover and reuse as product.
Dispose of via a licensed waste disposal contractor.

SECTION 7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protective Measures Put on appropriate personal protective equipment (see Section 8). If user operations generate dust, fumes or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

General Occupational Hygiene Measures: 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.

7.2 CONDITIONS FOR SAFE STORAGE INCLUDING ANY INCOMPATIBILITIES

Store in accordance with local regulations. May form steep piles that can collapse without warning when stored in bulk. Avoid forming steep slopes when removing product. Ensure that bulk bags or smaller packaged products stored in tiers are stacked, racked, blocked, interlocked, or otherwise secured to prevent sliding, rolling, or collapse. Use caution when opening truck or railcar doors as product may have shifted during transport.

Must be stored in a dry location. Absorbs moisture on long-term storage under high humidity conditions. Store away from incompatible materials (see Section 10). When product is stored in sealable containers, keep container tightly closed and sealed until ready for use. Sealable containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

Occupational Exposure Limits

Ingredient name	Exposure limits
Urea	Alberta TWA: 10 mg/m ³ Inhalable, 3 mg/m ³ Respirable, for Particles Not Otherwise Regulated. AIHA WEEL TWA: 10 mg/m ³ 8 hours.

8.2 EXPOSURE CONTROLS

Appropriate Engineering Controls

Ensure adequate ventilation (especially in confined areas), eye wash stations.

Environmental Exposure Controls

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.

Personal Protective Equipment

Gloves. Safety glasses. Protective clothing.



Hand Protection: Impermeable protective gloves.

Eye Protection: Protective goggles and safety glasses

Skin and Body Protection: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Wear suitable protective clothing. Wash contaminated clothing before reuse. Handle in accordance with good industrial hygiene and safety practice. Wash clothing frequently.

Footwear: Normal

Respiratory Protection

Use a properly fitted, particulate filter respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. 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

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid (Granular)
Color	White
Odour	Odorless to slightly ammoniacal
Odour Threshold	No Data Available
pH	7.2 @ 10% solution.
Evaporation Rate	Not Available
Melting Point	271.4°F (133°C)
Freezing Point	No Data Available
Boiling Point	No Data Available
Flash Point	Product does not sustain combustion.
Self-Ignition temperature:	Not Applicable
Decomposition Temperature:	135°C (275°F)
Flammability (solid/gas):	Not Flammable / Combustible
Lower and Upper Explosive (flammable) limits	Not Available

Vapour Pressure:	0.08kPa (0.6mm Hg) [room temperature]
Vapor Density:	No Data Available
Relative Density:	1.33
Solubility:	Easily soluble in the following materials: cold water and hot water. (1080g/l in water)
Partition coefficient: n-octanol/water	-1.59
Viscosity	No Data Available

9.2 OTHER INFORMATION

VOC Content	No Data Available
Specific Gravity	0.74 (Water=1)
Molecular Formula	CH ₄ N ₂ O

SECTION 10. STABILITY AND REACTIVITY

Reactivity	Incompatible with halogens, hydrogen peroxide, chlorinated hydrocarbons, fluorine, nitric acid, oxidizing agents and sulfuric acid.
Chemical Stability	The product is stable.
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to Avoid	Absorbs moisture on long-term storage under high humidity conditions. Decomposes on heating to high temperature.
Incompatible Materials	See Above. May be incompatible with some materials of construction. Contact your sales representative or a metallurgical specialist to ensure compatibility with your equipment.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute Toxicity	Result	Species	Dose	Exposure
	LC50 Oral	Mouse-Male	11 g/kg	-
	LC50 Oral	Rat-Male	8471 mg/kg	-
	LD50 Oral	Rat-Male	14300 mg/kg	-
	TDLo Oral	Cattle-Male, Female	200 mg (N)/kg	-

Conclusion / Summary – Non-hazardous Substance.

Irritation/Corrosion	Result	Species	Score	Exposure	Observation
	Skin	Rabbit	0	-	72 hrs

Conclusion / Summary – Non-irritating to skin, eyes or the respiratory system.

Sensitization Non-sensitizer to skin and lungs.

Potential Acute Health Effects	Exposure	Observation
	Eye Contact	No Known significant effects or critical hazards.
	Inhalation	No Known significant effects or critical hazards.
	Skin Contact	No Known significant effects or critical hazards.
	Ingestion	No Known significant effects or critical hazards.
Symptoms Related to the physical, chemical and toxicological characteristics	Eye Contact	No Specific Data. May cause irritation due to mechanical action.
	Inhalation	No Specific Data. Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs.
	Skin Contact	No specific data. Inorganic salt. Prolonged or repeated exposure may dry the skin, causing irritation.
	Ingestion	No specific data. May cause irritation of the digestive tract with accompanying nausea, vomiting and diarrhea.

Delayed and Immediate Effects and also Chronic Effects from Short & Long Term Exposure	Potential Immediate Effects Potential Delayed Effects	No known significant effects or critical hazards.	
Potential Chronic Health Effects	Conclusion / Summary General Carcinogenicity Mutagenicity Teratogenicity Developmental Effects Fertility Effects	No known significant effects or critical hazards.	
STOT (Specific Target Organ Toxicity) - Single Exposure	Not Available		
STOT (Specific Target Organ Toxicity) - Repeated Exposure	Not Available		
Aspiration Hazard	Not Available		
Reproductive Toxicity	Not Available – No known significant effects or critical hazards.		
Germ Cell Mutagenicity	Test OECD 471 Bacterial Reverse Mutation Test	Experiment In Vitro (Subject: Bacteria, Cell: Somatic, Metabolic Activation: With and Without)	Result Negative – No mutagenic effect.
Carcinogenicity	Result Negative – Oral – TC No known significant effects or critical hazards.	Species Rat – Male, Female	Dose 2250 mg/kg Continuous Exposure -
Information on the Likely Routes of Exposure	Routes of entry anticipated: Oral, Inhalation. Routes of entry not anticipated: Dermal		
SECTION 12. ECOLOGICAL INFORMATION			
Toxicity	Result	Species	Exposure
	Acute EC50 6573.1 mg/l Fresh water	Crustaceans – Ceriodaphnia dubia - Neonate	48 hrs
	Acute EC50 3910000 µg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hrs
	Acute LC50 >1000 mg/l Marine water	Crustaceans - Chaetogammarus marinus - Young	48 hrs
	Acute LC50 5000 µg/l Fresh water	Fish - Colisa fasciata - Fingerling	96 hrs
	Acute LC50 22500 mg/l Fresh water	Fish – Oreochromis mossambicus - Young	96 hrs
	Chronic NOEC 2 g/L Fresh water	Fish - Heteropneustes fossilis	30 days
	Conclusion / Summary: No known significant effects or critical hazards.		
Persistence and degradability	Aquatic half-life -	Photolysis -	Biodegradability Readily
	Conclusion / Summary: Readily biodegradable.		
Bioaccumulative Potential	LogP _{ow} -1.59	BCF -	Potential Low

Mobility in Soil	Soil/Water partition coefficient (K_{oc})	0.037
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Other Adverse Effects	No known significant effects or critical hazards.	
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SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14. TRANSPORT INFORMATION

	TDG Classification	DOT Classification	Mexico Classification	IMDG	IATA
UN Number	Not Regulated	Not Regulated	Not Regulated	Not Regulated	Not Regulated
UN Proper Shipping Name	-	-	-	-	-
Transport Hazard Class(es)	-	-	-	-	-
Packing Group	-	-	-	-	-
Environmental Hazards	No	No	No	No	No

Additional Information: Classification per the current revision, Transportation of Dangerous Goods.

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 to Annex II of MARPOL and the IBC Code: Not Available.

SECTION 15. REGULATORY INFORMATION

Canadian Lists:

Canadian NPRI	None of the components are listed.
CEPA Toxic Substances	None of the components are listed.
Canadian Inventory	This material is listed or exempted.

International Regulations

Chemical Weapon Convention List Schedules I, II, & III Chemicals: Not listed.
Montreal Protocol (Annexes A,B,C E): Not listed.
Stockholm Convention on Persistent Organic Pollutants: Not listed.
Rotterdam Convention on Prior Inform Consent (PIC): Not listed.
UNECE Aarhus Protocol on POPs and Heavy Metals: Not listed.

U.S. Federal Regulations TSCA 8(a) CDR Exempt/Partial exemption: Not determined
TSCA 8(b) inventory:: This material is listed or exempted.

Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not Listed
Clean Air Act Section 602 Class I Substances	Not Listed
Clean Air Act Section 602	Not Listed

Class II Substances

DEA List I Chemicals
(Precursor Chemicals) Not Listed

DEA List II Chemicals
(Essential Chemicals) Not Listed

SARA 302.304 Composition/information on ingredients

SARA 304 RQ Not Applicable

SAREA 311/312

Classification Not Applicable

State Regulations

Massachusetts This material is not listed.

New York This material is not listed.

New Jersey This material is not listed.

Pennsylvania This material is not listed.

California Prop. 65 This material is not listed.

SECTION 16. OTHER INFORMATION**NFPA Health Hazard**

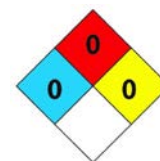
0 – No known significant effects or critical hazards.

NFPA Fire Hazard

0 – Materials that will not burn.

NFPA Reactivity

0 – Normally stable, even under fire exposure conditions, and are not reactive with water.

**References:**

Transportation of Dangerous Goods Act and Clear Language Regulations, current edition at time of (M)SDS preparation, Transport Canada;
 Hazardous Products Act and Regulations, current revision at time of (M)SDS preparation, Health Canada;
 Domestic Substances List, current revision at time of (M)SDS preparation, Environment Canada;
 29 CFR Part 1910, current revision at time of SDS preparation, U.S. Occupational Safety and Health Administration;
 40 CFR Parts 1-799, current revision at time of SDS preparation, U.S. Environmental Protection Agency;
 49 CFR Parts 1-199, current revision at time of SDS preparation, U.S. Department of Transport;
 Threshold Limit Values for Chemical Substances, current edition at time of SDS preparation, American Conference of Governmental Industrial Hygienists;
 NFPA 400, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
 NFPA 704, National Fire Codes, National Fire Protection Association, current edition at time of SDS preparation;
 Corrosion Data Survey, Sixth Edition, 1985, National Association of Corrosion Engineers;
 ERG 2012, Emergency Response Guidebook, U.S. Department of Transport,
 Transport Canada, and the Secretariat of Transportation and Communications of Mexico
 Hazardous Substances Data Bank, current revision at time of SDS preparation, National Library of Medicine, Bethesda, Maryland
 Integrated Risk Information System, current revision at time of SDS preparation, U.S. Environmental Protection Agency, Washington, D.C.
 Pocket Guide to Chemical Hazards, current revision at time of SDS preparation, National Institute for Occupational Safety and Health, Cincinnati, Ohio ;
 Agency for Toxic Substances and Disease Registry Databank, current revision at time of SDS preparation, U.S. Department of Health and Human Services, Atlanta, Georgia
 National Toxicology Program, Report on Carcinogens, Division of the National Institute of Environmental Health Sciences, Research Triangle Park, North Carolina. Registry of Toxic Effects of Chemical Substances. National Institute for Occupational Safety and Health, Cincinnati, Ohio
 The Fertilizer Institute, Product Toxicology Testing Program Results, TFI, Washington, D.C., 2003

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Prepared by NSC Minerals Ltd

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