

Conforms: GHS (rev 4) (2011)
(This Safety Data Sheet conforms to the requirements of the Hazard Communication Standard (HCS)
(29 CFR 1910.1200(g)), revised in 2012.) - United States

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Version 2.1



SAFETY DATA SHEET

Urea

Section 1. Identification

Product identifier UREA
Product type solid (granules, prills)
Product code PA38M2

Uses

Area of application Professional applications
Material uses Fertilizers.

Supplier

Supplier's details PRO Chemical & Dye.

Address

Street 126 Shove Street
Postal code 02724
City Fall River, MA
Country United States

Emergency telephone number 800-255-3924 ChemTel. (United States)
(with hours of operation) + 1 01 813-248-0585 (Outside the United States)

National advisory body/Poison Center

Name The National Poisons Emergency number
Telephone number 1 800 222 1222

Section 2. Hazards identification

OSHA/HCS status This material is not considered hazardous by the OSHA
Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture. Not classified.

GHS label elements

Signal word No signal word.

Hazard statements	Not applicable.
<u>Precautionary statements</u>	
General	Not applicable.
Hazards not otherwise classified	Product forms slippery surface when combined with water.

Section 3. Composition/information on ingredients

Substance/mixture	Substance		
<u>CAS number/other identifiers</u>			
Other means of identification	Urea		
CAS number	57-13-6		
Ingredient name	CAS number		%
Urea	57-13-6		100

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 as hazardous to health or the environment 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	Rinse with plenty of running water. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation	If inhaled, remove to fresh air. 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	Wash with soap and water. Get medical attention if irritation develops.
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 adverse health effects persist or are severe.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact	No known significant effects or critical hazards.
Inhalation	Exposure to decomposition products may cause a health

Skin contact	hazard. Serious effects may be delayed following exposure.
Ingestion	No known significant effects or critical hazards.
	No known significant effects or critical hazards.
<u>Over-exposure signs/symptoms</u>	
Eye contact	No specific data.
Inhalation	No specific data.
Skin contact	No specific data.
Ingestion	No specific data.
<u>Indication of immediate medical attention and special treatment needed, if necessary</u>	
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
Specific treatments	be kept under
Protection of first-aiders	medical surveillance for 48 hours.
	No specific treatment.
No action shall be taken involving any personal risk or without suitable training.	

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None identified.
Specific hazards arising from the chemical	No specific fire or explosion hazard.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides ammonia Avoid breathing dusts, vapors or fumes from burning materials. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
Special protective actions for fire-fighters	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.
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.
Remark	Non-flammable.

Remark None.

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

Methods and materials for containment and cleaning up

Small spill	Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.
Large spill	Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. 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	Put on appropriate personal protective equipment (see Section 8).
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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Urea	AIHA WEEL (1999-01-01) TWA 10 mg/m ³ NIOSH REL (2005-09-30)

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

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. Wash contaminated clothing before reusing. A washing facility or water for eye and skin cleaning purposes should be present.

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.

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. 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.

Other skin protection

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.

Section 9. Physical and chemical properties

Appearance

Physical state	solid [granules, prills]
Color	White.
Odor	Odorless.
Odor threshold	Not determined.
pH	9 [Conc.: 100 g/l] @ 20°C (68 °F)
Melting/freezing point	133-134°C (271-273°F)
Boiling/condensation point	Not determined.
Sublimation temperature	Not determined.
Flash point	Not applicable
Fire point	Not determined.
Evaporation rate	Not determined.
Flammability (solid, gas)	Non-flammable.
Lower and upper explosive (flammable) limits	Lower: Not determined. Upper: Not determined.
Vapor pressure	0.000016 hPa
Vapor density	2.07 [Air = 1]
Bulk density	760 - 800 kg/m ³
Density	1.33 g/cm ³ @ 20°C (68 °F)
Relative density	Not determined.
Solubility	Easily soluble in the following materials: cold water
Solubility in water	624 g/l @ 20°C (68 °F)
Partition coefficient: n-octanol/water	Not determined.
Auto-ignition temperature	Not determined.
Decomposition temperature	Not determined.
Viscosity	Dynamic: Not determined. Kinematic: Not determined.
Explosive properties	None.
Oxidizing properties	None

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	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid	Avoid contamination by any source including metals, dust and organic materials.
Incompatible materials	Urea reacts with calcium hypochlorite or sodium hypochlorite to form the explosive nitrogen trichloride.
Remark	acids alkalis Nitrites and nitrates
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/ingre- dient name	Result	Species	Dose	Exposure	References
Urea					
LD50 Oral		Rat	14,300 mg/kg OECD 401	Not applicable.	IUCLID 5

Conclusion/Summary No known significant effects or critical hazards.

Irritation/Corrosion

Conclusion/Summary

Skin

No known significant effects or critical hazards.

Eyes

No known significant effects or critical hazards.

Respiratory

No known significant effects or critical hazards.

Sensitization

Conclusion/Summary

Skin

No known significant effects or critical hazards.

Respiratory

No known significant effects or critical hazards.

Mutagenicity

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

Carcinogenicity

Product/ingredient Name	Result	Species	Dose	Exposure	References
Urea	Negative-Oral-NOAEL	Rat	2,250 mg/kg	Not Applicable	IUCLID 5

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

Product/ingradient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure	References
Urea	Not Applicable	Not applicable	Negative	Rat	Oral: 500 Mg/kg	7 days per week	IUCLID 5

Conclusion/Summary : No known significant effects or critical hazards

Specific target organ toxicity (single exposure)

No known significant effects or critical hazards

Specific target organ toxicity (repeated exposure)

No known significant effects or critical hazards

Aspiration hazard

No known significant effects or critical hazards

Information on the likely routes of exposure : Not available

Potential acute health effects

- Eye contact : No known significant effects or critical hazards.
- Inhalation : Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- 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.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

Short term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available

Long term exposure

Potential immediate effects : Not available.
Potential delayed effects : Not available.

Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure	References
Urea	NOAEL Oral	Rat	2,250 mg/kg	12months 7 days per week	IUCLID 5

Carcinogenicity No known significant effects or critical hazards.
Mutagenicity No known significant effects or critical hazards.
Fertility effects No known significant effects or critical hazards.
Developmental effects No known significant effects or critical hazards.
Effects on or via lactation No known significant effects or critical hazards.
Other effects No known significant effects or critical hazards.

Over-exposure signs/symptoms

Eye contact No specific data.
Inhalation No specific data.
Skin contact No specific data.
Ingestion No specific data.

Numerical measures of toxicity

Acute toxicity estimates
Not available.

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure	References
Urea				
	Acute LC50 6,810 mg/l Fresh water	Fish	96 h	IUCLID 5
	Acute EC50 10,000	Water flea	24 h	IUCLID 5

	mg/l Fresh water			
	Chronic NOEC 47 mg/l Fresh water	Algae	192 h	IUCLID 5

Conclusion/Summary No known significant effects or critical hazards.

Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum	References
Urea	302B Inherent Biodegradability Zahn-Wellens/EMP A Test	96 %-Inherently biodegradable - 16 d	Not applicable	Activated sludge	IUCLID

Conclusion/Summary No known significant effects or critical hazards.

Bioaccumulative potential

Product/Ingredient name	LogPow	BCF	Potential
Urea	1.73	Not applicable	low

Conclusion/Summary No known significant effects or critical hazards.

Mobility in soil
Soil/water partition coefficient (KOC)

Not available.

Mobility

This product may move with surface or groundwater flows because its water solubility is: high

Other adverse effects

No known significant effects or critical hazards.

Section 13. Disposal considerations

Product

Methods of disposal

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. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil,

waterways, drains and sewers.

Section 14. Transport information

Regulation: UN Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional information Environmental hazards	No.

Regulation: IMO	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional information <u>Marine pollutant</u>	No.

Regulation: IATA	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional information <u>Marine pollutant</u>	No.

Regulation: DOT Classification	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.

Additional information**Marine pollutant**

Not available.

Regulation: TOG Class	
14.1 UN number	Not regulated.
14.2 UN proper shipping name	Not applicable.
14.3 Transport hazard class(es)	Not applicable.
14.4 Packing group	Not applicable.
14.5 Environmental hazards	No.
Additional information	
Not applicable.	
Environmental hazards	No.

14.6 Special precautions for user

Transport within user's premises: Ensure that persons transporting the product know what to do in the event of an accident or spillage.

IMSBC**Bulk cargo shipping name**

UREA

Class

Not applicable.

Group

C

Marpol V

Non-HME

Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable.

Section 15. Regulatory information**United States****U.S. Federal regulations****TSCA 8(a) COR Exempt/Partial exemption:** Not determined**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 Class II Substances

Not listed

OEA List I Chemicals

Not listed

(Precursor Chemicals)

Not listed

OEA List II Chemicals**(Essential Chemicals)**

SARA 302/304

Composition/information on ingredients

No products were found.

SARA 304 RQ Not applicable.

SARA 311/312

Classification Not applicable.

Composition/information on ingredients

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

WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Inventory list

Philippines inventory (PICCS): All components are listed or exempted.

New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.

Korea inventory: All components are listed or exempted.

Japan inventory: All components are listed or exempted.

China inventory (IECSC): All components are listed or exempted.

Australia inventory (AICS): All components are listed or exempted.

Canada inventory: All components are listed or exempted.

Taiwan Chemical Substances Inventory (TCSI): All components are listed or exempted.

United States inventory (TSCA 8b): All components are listed or exempted.

EC INVENTORY (EINECS/ELINCS): All components are listed or exempted.

Canada: All components are listed or exempted.

Section 16. Other information

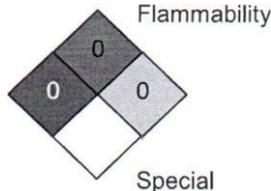
National Fire Protection Association (U.S.A.)

1.

Instability/Reactivity

Health

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National Fire Protection Association, Quincy, MA system interpreted and applied only by properly trained fire, hazards of chemicals. The user is referred to

Procedure used to derive the classification

Classification	Justification
Not classified.	

08/27/2018
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2.1

History

Date of printing
Date of issue/Date of revision
Date of previous issue
Version
Key to abbreviations

ATE = Acute Toxicity Estimate
RCF = Rinconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IRC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = Logarithm of the octanol/water partition coefficient
MAR POL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
UN = United Nations

|| Indicates information that has changed from previously issued version.

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