

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

Conforms: GHS (rev 4) (2011)

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Version : 2.1



SAFETY DATA SHEET

UREA

Section 1. Identification

Product identifier : UREA
Product type : solid (granules, prills)
Product code : CHM1008, CHM2008, CHM3008

Uses

Uses : Slows the drying process when applying dye solutions
: directly to fabric

Supplier

Supplier's name : RUPERT, GIBBON & SPIDER, INC.

Address

Street : 1147 Healdsburg Ave.
Postal code : 95448
City : Healdsburg, CA
Country : United States

Telephone number : 1-800-442-0455 / +1 707-433-9577

Fax no. : +1 707-433-4906
e-mail address of person : service@jacquardproducts.com
responsible for this SDS

Emergency telephone number : ChemTel, Inc. - Contract #MIS9128344
(with hours of operation) N.America: 1-800-255-3924 / International: 1-813-248-0585

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.

Precautionary statements

General : Not applicable.

Hazards not otherwise classified : Product forms slippery surface when combined with water.

Section 3. Composition/information on ingredients

Substance/mixture : Substance

CAS number/other identifiers

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

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- 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.

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

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

- 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.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : 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.

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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

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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.

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

- : 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

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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

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| | | |
|---|---|--|
| 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/ingredient 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

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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.

Reproductive toxicity

| Product/ingredient 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.

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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 |

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| | | | | |
|--|----------------------------------|-------|-------|----------|
| | 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,

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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 <u>Environmental hazards</u> : No. | |

| | |
|---|-----------------|
| Regulation: IMDG | |
| 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. |

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Additional information
Marine pollutant : Not available.

Regulation: TDG 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) CDR 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

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Not listed

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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

None of the components are listed.

Inventory list

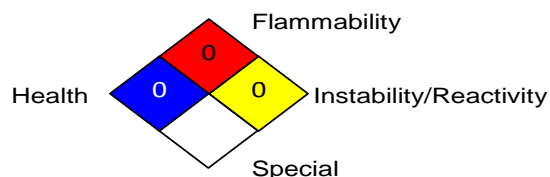
Philippines inventory (PICCS): All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Korea inventory: All components are listed or exempted.
Japan inventory: All components are listed or exempted.
China inventory (IECSC): All components 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.)

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Copyright ©2001, National Fire Protection Association, Quincy, MA 02269. This warning system is intended to be interpreted and applied only by properly trained individuals to identify fire, health and reactivity hazards of chemicals. The user is referred to certain limited number of chemicals with recommended classifications in NFPA 49 and NFPA 325, which would be used as a guideline only. Whether the chemicals are classified by NFPA or not, anyone using the 704 systems to classify chemicals does so at their own risk.

Procedure used to derive the classification

| Classification | Justification |
|-----------------|---------------|
| Not classified. | |

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)
 UN = United Nations

Indicates information that has changed from previously issued version.

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completeness thereof. Rupert, Gibbon & Spider, Inc. urges each customer or recipient of this SDS to study it carefully to become aware of and understand the hazards associated with this product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology or fire and understand the data in this SDS.

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