

**PRODUCT NAME: LIVESTOCK UREA****BRAND: U-PROTEIN[®]****MSDS Nº: 01****PAGE: 01 de 08****DATE OF LAST REVIEW: 20/02/2019**

1 - IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

PRODUCT NAME: LIVESTOCK UREA**MSDS No.** 01**NAME OF THE COMPANY:** INOVA UNIVERSE COMÉRCIO, IMPORTAÇÃO E EXPORTAÇÃO EIRELLI**ADDRESS:** Rua Helena, 280 conjunto 912 Vila Olímpia São Paulo-SP CEP: 04.552-050**SYNONYMOUS:** CARBAMIDE**CHEMICAL FORMULA:** NH_2CONH_2 **UN NUMBER** NA**TELEPHONE:** +55 11 3525-7445**MOBILE:** 55+ 11 97690-5319**E-mail:** uprotein@inovauniverse.com.br

2 - HAZARDS IDENTIFICATION

CLASSIFICATION SYSTEM: GHS - Globally Harmonized System for Classification and Labeling;
ABNT-NBR 14725-2-2009**PRODUCT HAZARD CLASSIFICATION:** Skin irritation - Class 2 H315; Eye irritation Class 2A H319**APPROPRIATE LABELING****HAZARD PHRASES:** P261 Avoid breathing dust**EMERGENCY ACTIONS:** P264 Wash hands thoroughly after handling.

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P271 Use only in open or well ventilated areas.

P280 Wear eye protection, face protection and protective clothing.

P302 + P352 In contact with skin - Wash with plenty of water over affected area. P30 + P340 If inhaled - Remove victim to fresh air and keep comfortable for breathing.

P305 + P331 + P338 Contact with eyes - Wash thoroughly with water for several minutes. Remove contact lenses if easy. Continue to wash

Contact doctor or hospital if you feel unwell

P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P501 Disposal of material / packaging should be in accordance with applicable legislation.

3 - COMPOSITION AND INFORMATION ON INGREDIENTS

NAME: UREIA**OTHER NAMES:** CARBAMIDA**CAS NUMBER:** 57-13-6**CHEMICAL FORMULA:** NH_2CONH_2 **IMPURITIES RISKS:**

INGREDIENT	% WASTE	CAS NUMBER	GHS CLASSIFICATION
FREE AMMONIA	300 ppm (max.)	7664-41-7	Skin irritation 2 H315
BIURET	1,0 (max.)	108-19-0	Eys irritation 2A H319

4 - FIRST AID MEASURES

INHALATION: In case of inhalation, seek fresh air or fresh air and keep comfortable for breathing. If necessary, provide oxygen or artificial respiration. See a Doctor if breathing difficulty persists.

SKIN CONTACT: Wash skin thoroughly with mild soap and water.

If in contact with molten product do not remove clothing. Wash skin immediately with cold water. See a Doctor if irritation persists. Wash clothes before reuse.

EYE CONTACT: Rinse immediately with water for 15 minutes. Keep eyelids open to ensure thorough washing. Get medical attention if the problem persists.

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INGESTION: Do not cause vomiting. Keep the affected person warm and try to avoid shock. A 100 gram dose affects the central nervous system and causes drowsiness. Get medical attention if large quantities are ingested.

5 - FIRE FIGHTING MEASURES

EXTINCTION MEANS: Not considered flammable but burns at high temperatures. Use appropriate means to fight the surrounding fire.

FIRE RISK: Decomposes above 132.5 °C. In flames produces: Ammonia, Nitrogen Oxides, Biuret. Short exposure to smoke and gases may lead to irreversible lung injury.

RISK OF EXPLOSION: Product is not explosive. When mixed with Nitric and Perchloric Acid and strong Oxidizers it can form explosive mixtures.

REACTIVITY: Stable at room temperature and normal conditions of use

6 - FIRE FIGHTING INSTRUCTIONS

Non flammable product. Urea burns with difficulty. Urea becomes slippery when in contact with water. Use protection against slipping and falling.

Avoid excessive use of water to prevent transfer of Urea to watercourses.

7 - SPILL AND LEAK CONTROL

CONTAMINATION: Separate and collect material in suitable container. Do not allow contamination of sewers, waterways, groundwater. Inform the competent authority in case of contamination. Avoid large amounts directly on the vegetation.

Wear full PPE, side-shielded safety goggles, long rubber gloves, suitable clothing, and in case of large leaks respirators containing dust-retaining filters are recommended.

CLEANING METHODS: Recover the product by vacuuming, shoveling or sweeping and placing in containers and suitable disposal site in accordance with the applicable legislation. Provide appropriate ventilation. Avoid dust generation during cleaning or spillage. Only reuse the product in case of non contamination. Spillage may make the surface smooth. Refer to disposal information.

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8 - STORAGE AND HANDLING

SAFE HANDLING MEASURES: Handle in accordance with good hygiene and cleaning practice. Wear appropriate personal protective equipment. Avoid spilling and spreading dust.

HYGIENE MEASURES: Eye wash water source shall be available near locations exposed to potential contamination. Avoid contamination with other materials that may cause fire or explosion.

STORAGE CONDITIONS: Store in a dry, covered and cool place away from heat and ignition sources. Protect from moisture as Urea is hygroscopic and water soluble.

INCOMPATIBLE MATERIALS: Avoid pipes or fittings made of copper, brass, bronze in alloys or galvanized metals.

9 - PHYSICOCHEMICAL PROPERTIES

Physical state	Solid
Appearance	Granules
Color	White
Smell	Slightly Ammoniated
pH	7,2 (100 g/liter)
Molecular Weight	60 g/mol
Melting Point	132,6 °C
Flammability	Not flammable
Steam pressure	80 Pa a 20 °C
Apparent density	0,75 ton/m ³
Solubility	1,193 g/l a 25 °C

10 - STABILITY AND REACTIVITY

REACTIVITY: Stable at room temperature and normal conditions of use.

CHEMICAL STABILITY: Stable under normal temperature and pressure conditions.

POSSIBILITY OF HAZARDOUS REACTIONS: Reacts dangerously with Nitric Acid, Nitrite, Chloride, Perchlorate and may cause fire or explosion.

CONDITIONS TO AVOID: Protect from moisture. May slowly hydrolyze and generate ammonia and carbon dioxide. Avoid high temperatures and unventilated locations

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INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizers, strong acids and bases, nitrates, perchloric acid and their salts. Reacts with Sodium and Calcium Hypochlorite to form the explosive compound Nitrogen Trichloride.

HAZARDOUS DECOMPOSITION PRODUCTS: Under flames this product may form Ammonia, Biuret, Nitrogen Oxides and Carbon Dioxide.

11 - TOXICOLOGICAL INFORMATION

SKIN IRRITATION: Causes irritation on contact with skin.

EYES DAMAGE / IRRITATION: Causes irritation and redness in contact with eyes.

SKIN AND RESPIRATORY TRACT SENSITIVITY: Not classified.

MUTAGENICITY IN GERMINARY CELLS: It presented mutagenicity in rat and hamster cells in laboratory after high dosing.

CARCINOGENICITY: Material not listed on IARC, NTP, or OSHA.

REPRODUCTIVE TOXICITY: Non-toxic for laboratory mouse testing up to 6,750 mg / kg / day

TOXICITY FOR SPECIFIC ORGANS - POINT EXPOSURE: May cause respiratory irritation.

TOXICITY FOR SPECIFIC ORGANS - CONTINUOUS EXPOSURE: No expected toxicity for specific organ.

ASPIRATION HAZARDS: Not classified.

12 - ECOLOGICAL INFORMATION

TOXICITY FOR FISHES: LC₅₀ Barillius bama 96 hs = 9.100 mg/L

TOXICITY FOR WATER PLANTS: 192 hs cell multiplication inhibition test
TT > 10,000 mg / L

TOXICITY FOR AQUATIC ORGANISMS: Non toxic to aquatic organisms

BIODEGRABILITY: Fully biodegradable

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13 - DISPOSAL INFORMATION

PRODUCT REMAININGS: Keep product in its original closed packaging and store in sealed metal drums. Dispose of the product to treatment-enabled companies. Disposal of the product shall follow the applicable law, including: Law No. 12.2305 of August 2, 2010 (National Policy on Solid Waste)

USED PACKAGING: Do not reuse packaging. Forward packaging to companies qualified for recycling and proper disposal.

14 - TRANSPORT INFORMATION

Product not classified as dangerous according to ANTT Resolution No. 420 of February 12, 2004

ROAD: Resolution no. 420 of February 12, 2004 of the National Road Transportation Agency (ANTT) Approves the Supplementary Instructions to the Regulation of Inland Transport of Dangerous Goods and its amendments.

RIVER: DPC - Ports and Coasts Directorate (Transportation in Brazilian waters) Maritime Authority Standards (NORMAM) NORMAM 01 / DPC: Vessels Employed in Open Sea Navigation NORMAM 02 / DPC: Vessels Employed in Inland Navigation

IMO - "International Maritime Organization" International Maritime Dangerous Goods Code (IMDG Code)

AIR: ANAC - National Agency of Civil Aviation - Resolution No. 129 of December 8, 2009. RBAC No. 175 - (BRAZILIAN CIVIL AVIATION REGULATION) - TRANSPORTATION OF HAZARDOUS ARTICLES IN CIVIL AIRCRAFT. 175-001 - ADDITIONAL INSTRUCTION - IS ICAO -

International Civil Aviation Organization" - Doc. 9284- NA/905 IATA - "International Air Transport Association" Dangerous Goods Regulation (DGR).

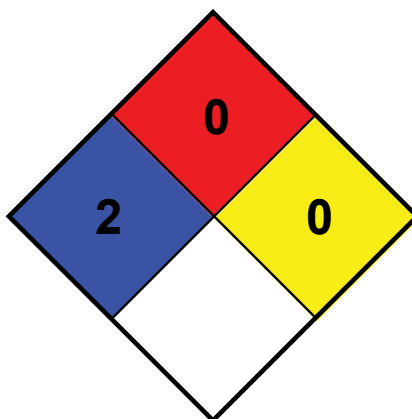
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15 - FURTHER INFORMATION

Product not classified as dangerous according to ABNT NBR 14725-2



This MSDS has been prepared based on the information currently available. Strictly follow the instructions for use and handling contained in the package. MSDS prepared in October / 2018.

ACGIH - American Conference of Governmental Industrial Hygienists BCF

- Bioconcentration Factor C - Ceiling

CAS - Chemical Abstracts Service DL50 - Dose Letal 50%

UN - United Nations

IDLH - Immediately Dangerous to Life or Health LAW - Lower Explosive Limit

LES - Upper Explosive Limit LT - Tolerance Limit

NIOSH - National Institute for Occupational Safety and Health NR

NA - Not applicable.

REACH - European Regulation on Registration, Evaluation, Authorisation and Restriction of Chemical

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