

MATERIAL SAFETY DATA SHEET

SCU39

I. PRODUCT IDENTIFICATION

PRODUCT : SCU39 (Sulfur Coated Urea)
CHEMICAL : Amide
CHEMICAL NAME : Carbamide; carbonyldiamine; carbamidic acid; SCU;
Controlled release nitrogen
MATERIAL USES : Agricultural use; Fertilizer; Manufacture of specialty fertilizers

II. HAZARD IDENTIFICATION

POTENTIAL ACUTE HEALTH EFFECTS Not considered to be toxic for humans under normal conditions of use. However, in keeping with good industrial hygiene practices, exposure to any chemical should be kept to a minimum. This product may cause irritation to the eyes and skin due to mechanical action.

POTENTIAL CHRONIC HEALTH EFFECTS CARCINOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, OSHA.
MUTAGENIC EFFECTS: NONE by ACGIH, EPA, IARC, OSHA.
TERATOGENIC EFFECTS: NONE by ACGIH, EPA, IARC, OSHA.
There is no known effect from chronic exposure to this product. Urea is approved as a food and cosmetic additive, is an ingredient in clinical preparations, and is a normal human metabolite found in urine.

III. PRODUCT INFORMATION: INGREDIENTS

Chemical Name	% (by wt.)
Total Nitrogen	39
Total Sulfur	8

IV. FIRST AID MEASURES

INGESTION Do not induce vomiting. Keep affected person warm and at rest. Get medical attention.

SKIN Wash area of contact thoroughly with soap and water. Launder clothing before reuse. Get medical attention if irritation persists. For contact with molten product, do not remove contaminated clothing. Flush skin immediately with large amounts of cold water. If possible, submerge area in cold water. Pack with ice. Thermal burns require immediate medical attention.

EYES Flush immediately with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if

irritation persists.

INHALATION Remove affected person from source of exposure. If not breathing, ensure open airway and institute cardiopulmonary resuscitation (CPR). If breathing is difficult, administer oxygen if available. Get medical attention.

V. FIRE FIGHTING MEASURES

Flash Point (method Used) : non-combustible

Auto Ignition Temperature: NA

Lower Explosion Limits : NA

Upper Explosion Limits : NA

NFPA/HMIS RATING:	HEALTH	FIRE	REACTIVITY
	1	1	0

SPECIAL FIRE-FIGHTING PROCEDURES

Use extinguishing agent suitable for type of surrounding fire. Material itself burns with difficulty. Urea becomes slippery when wet - guard against falls. Do not allow runoff to enter drains, sewers or water sources. Keep runoff away from trees and shrubs.

UNUSUAL FIRE AND EXPLOSION HAZARDS

Irritating or toxic substances may be emitted upon thermal decomposition. Exposed fire fighters should wear MSHA/NIOSH approved self-contained breathing apparatus and full face mask and full protective equipment. Uncontaminated urea is not an explosion hazard. May form explosive mixtures subject to spontaneous detonation when contaminated with strong acids (nitric or perchloric) or nitrate fertilizers. Should abrasion of this product be extreme, sulfur dust formation may explode at concentrations greater than 35 mg/M3.

VI. ACCIDENTAL RELEASE MEASURES

SMALL SPILL Use appropriate tools to put the spilled solid in a suitable container for intended use or disposal.

LARGE SPILL Prevent additional discharge of material, if possible to do so without hazard. Prevent spills from entering sewers, watercourses, wells, etc. Product will promote algae growth which may degrade water quality and taste. Notify downstream water users. Recover and place material in suitable containers for recycle, reuse, or disposal.

VII. HANDLING AND STORAGE

HANDLING Avoid contact with eyes, skin and clothing. Do not take internally. Avoid breathing dust. Do not eat, drink or smoke while handling product. Wash thoroughly after handling. Do not apply directly to waters. Properly collect and treat wastewater.

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STORAGE Store in a cool, dry area out of reach of children and animals.

VIII. EXPOSURE CONTROL AND PERSONAL PROTECTION

ENGINEERING CONTROLS Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, use ventilation to keep exposure to airborne contaminants below the exposure limit

PERSONAL PROTECTION The selection of personal protective equipment varies, depending upon conditions of use. Under well controlled conditions where contact with the substance is limited and exposures are below the occupational exposure limit, normal work clothing may suffice. Where skin and eye contact may occur as a result of brief periodic exposures, wear long sleeved clothing or coveralls and safety glasses with side shields.

Wear appropriate respirator when ventilation is inadequate. A filtering facepiece dust mask is adequate for most applications. A NIOSH approved full facepiece or half mask

dust respirator with N-100 or P-100 filters should be used under conditions where airborne concentrations may exceed occupational exposure limits. For U.S facilities, a respiratory protection program that meets OSHA 29 CFR 1910.134 requirements must be followed whenever workplace conditions warrant a respirator's use.

EXPOSURE LIMITS AIHA Workplace Environmental Exposure Limits: 10 mg/m³ TWA for Urea as inhalable dust. OSHA PEL: 15 mg/m³ for Particulates Not Otherwise Regulated.

Federal, State or Provincial exposure limits may vary by jurisdiction. Consult local authorities for acceptable exposure limits in your area.

IX. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL APPEARANCE Uniformly sized solid yellow granules

ODOR Odorless

PH Approximately 6.5 – 7.0

MELTING POINT Not Determined

PACKING DENSITY Approximately 48 - 54 lbs/ft³ (780 – 860 kg/m³)

ANGLE OF REPOSE Approximately 34 – 36 degrees

SOLUBILITY IN WATER Approximately 30 percent

(7 days)

X. STABILITY AND REACTIVITY

STABILITY Stable under ambient conditions.

CONDITIONS TO AVOID Excessive heat; absorbs moisture above 60% relative humidity.
INCOMPATIBILITY Strong oxidizers and hypochlorites. Moderately corrosive to metals when wet.

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DECOMPOSITION Heated to decomposition, will give off toxic fumes of ammonia, and
HAZARD oxides of carbon, nitrogen & sulfur.
HAZARDOUS Will Not Occur.
POLYMERIZATION

XI. TOXICOLOGICAL INFORMATION

EXPOSURE LIMIT None established for this product
CARCINOGENICITY DATA The ingredients of this product are not classified as carcinogenic
TOXICOLOGICAL DATA ORAL (ACUTE) not determined by laboratory testing
REPRODUCTIVE EFFECTS None
MUTAGENICITY EFFECTS None
TERATOGENICITY EFFECTS None
SYNERGISTIC MATERIALS None

XII. ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS No known significant effects or critical hazards.
ECOTOXICITY This product is biodegradable
PERSISTENCE / DEGRADATION Slow release nitrogen fertilizer
OTHER Do not contaminate any body of water

XIII. DISPOSAL INFORMATION

Waste Disposal Method (United States) Dispose according to USEPA guidelines as outlined in RCRA. Follow state and local regulations. Be certain bags are completely empty before disposal. Properly collect and treat wastewater.
Waste Disposal Method (Canada) Dispose according to CEPA guidelines as outlined in Regulation 347. Follow provincial and municipal regulations. Be certain bags are completely empty before disposal. Properly collect and treat wastewater.

XIV. TRANSPORTATION INFORMATION

Products are not classified as hazardous according to transport regulations on hazardous substances.

REGULATORY INFORMATION	UN NUMBER	Proper shipping name	Class	Packing group	Additional information
DOT Classification	Not regulated	-	-	-	-
TDG Classification	Not regulated	-	-	-	-

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XV. REGULATORY INFORMATION

SARA TITLE III; SEC. 311/312 HAZARD CATEGORIES

<u>Y</u> Immediate (acute) Health	SEC 302: NA
<u>N</u> Delayed (Chronic) Health	SEC 304: NA
<u>N</u> Fire	SEC 313: NA
<u>N</u> Sudden Release of Pressure	CERCLA RQ: NA
<u>N</u> Reactivity	CAA RQ: NA

EPA Reg. No.: NA

HM 181 Shipping Name: Not Regulated.

XVI. OTHER INFORMATION

References: Not available.

Other Special Considerations: Not available.

Created: 06/02/2010

Last Updated: 01/07/2015

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