

Safety Data Sheet
Noble Technologies Inc.

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: Noble 60

Recommended use of the chemical: Water treatment flocculant

Manufacturer: Noble Technologies, Inc.
5217 High Vista Dr.
Orefield, PA, USA 18069

Emergency Phone Number: 484 538 5502

2. Composition

Substances

Main Constituent: Polymer
CAS No. 250-02-03

Hazardous Ingredients

Urea	CAS # 57-13-6	Concentration $\geq 1\%$ $\leq 1.5\%$
Polymer	CAS # 25085-02-03	Concentration $\geq 80\%$ $\leq 90\%$

3. Hazards identification

Emergency Overview Appearance: solid white powder

Potential Health Effects

Exposure routes

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion

Eye Contact

May cause mild eye irritation. Symptoms include stinging, tearing and redness.

Skin Contact

Unlikely to cause skin irritation or injury

Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

Inhalation

This material is a dust or may produce dust. Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful. Symptoms are not expected at air concentrations below recommended exposure limits, if applicable (see section #8).

Symptoms

Signs and symptoms of exposure to this material through breathing, swallowing, and or passage of the material through the skin may include; stomach or intestinal upset, irritation, headache, dizziness.

3. Hazards identification cont.

Target Organs
No data

Carcinogenicity
This material is not listed as a carcinogen by the IARC, NTP or OSHA.

Reproductive Hazard
No data, Based on available information, the risk to the fetus from maternal exposure to this material cannot be assessed.

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4. First Aid

General Information: Eyewash station should be available if there is a risk of eye contact.

Inhalation: Remove to fresh air. Obtain medical attention for distress.

Skin: Single, short exposure causes no known adverse effect.
Flush with clean water, wash with soap and water.

Eye: Contact with eye may cause irritation. Flush immediately with clean water for 15 minutes. If symptoms persist obtain immediate medical attention.

Oral: Seek medical attention. If the individual is drowsy or unconscious do not give anything by mouth; place individual on left side with head down. Contact physician, medical facility or poison control center for advice about inducing vomiting. If possible, do not leave individual unattended

Obtain medical attention if large amounts are swallowed or there is discomfort.

5. Fire Fighting Measures

Suitable extinguishing agents: Product is not flammable. Containers may be sprayed with water or water-based agents.

For safety reasons

Unsuitable extinguishing agents: None known.

Special hazards: On heating, product may form ammonia, carbon dioxide and carbon monoxide, nitrogen oxides, acid vapors, nitrogen compounds acid vapors.

Protective equipment: Full protective gear and self-contained breathing apparatus (SCBA) for industrial fires.

6. Accidental Release Measures

Person-related safety precautions: For personal protection see section #8. Persons not wearing protective equipment should be excluded from the area of spill.
Material can create slippery conditions. Avoid breathing dust.

Measures for cleaning/collection: Sweep or vacuum spillage and collect in suitable container for disposal. Flush area thoroughly with water and scrubbed to remove residue. If slipperiness remains apply dry sweeping compound.

D.O.T. Spill reporting Information: Hazardous substance: None Reportable Quantity: None

7. Handling and Storage

Handling:

Information for safe handling: Avoid creating and breathing dust. Do not allow dust to accumulate on structures or equipment.
This material is slippery when wet.

Information about protection against explosion and fires: Product is not flammable or explosive.

Storage:

Store in a cool dry ventilated area.

Information about storage in
one common storage facility: No restrictions.

Maximum storage temperature: Information not available.

Storage class: Information not available.

Class according to regulation
on inflammable liquids: No restrictions.

8. Exposure Controls and Personal Protection

Provide appropriate exhaust ventilation at places where dust is formed. Provide sufficient ventilation to maintain exposure below exposure guidelines, or below levels that cause known, suspected or apparent adverse effects.

Exposure Guidelines

UREA #57-13-6

WEEL time weighted average 10 mg/m3 Total particulate

Personal protective equipment:

General protective and hygienic measures: Avoid exposure to dust in the air or contact with eyes.

Eye protection Safety glasses or chemical splash goggles when dust is possible.

8. Exposure Controls and Personal Protection cont.

Protection of hands:	Wear resistant gloves or impervious gloves if contact is excessive.
Eye protection:	Safety glasses at a minimum, goggles for risk of exposure.
Body protection:	Work uniforms should be adequate.
Breathing equipment:	A NIOSH approved air purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected or exceed exposure limits, or if overexposure has otherwise been determined. Protection provided by air purifying respirators is limited. Use a positive pressure, air supplied respirator if there is potential for uncontrolled release, exposure levels are not known or any other circumstances where an air purifying respirator may not provide adequate protection.

9. Physical and Chemical Properties

Form, color and smell: Powder, white, with a slight, characteristic odor.

Change in condition:

Melting point/melting range: 0 to -5C
Boiling point/boiling range: Water will boil off at 100C at 760 mm Hg
Flash point: None, product is not flammable.

Inflammability (solid, gaseous)

Ignition temperature: None, product is not flammable.
Decomposition temperature: Decomposition will begin at temperatures in excess of 160C.
Self-inflammability: None, product is not flammable.
Danger of explosion: None, product or mist from product will not support combustion.
Density: 0.72 g/cc at 25C
Bulk Density 600 -750 Kg/m³

Solubility in/miscibility with:

Water: Soluble
pH value: Approximately 7.3 in a 5g/1L aqueous solution.
Additional information: Viscosity, dynamic >200 mPa s

10. Stability and Reactivity

Stability	Stable
Thermal decomposition/conditions to be avoided:	None known
Materials to be avoided:	Acids, Chlorine, Nitrates, Strong Bases, Strong Oxidizing Agents
Dangerous reactions:	None known.
Dangerous products of decomposition:	On heating, product may form ammonia, carbon dioxide and carbon monoxide, nitrogen oxides, acid vapors, nitrogen compounds acid vapors.

11. Toxicological Information

Acute oral toxicity:	LD 50 Mouse > 5,000 mg/Kg
Acute inhalation toxicity:	Information not known.
Acute dermal toxicity:	Information not known.
<u>Primary irritant effect:</u>	
On the skin:	Not irritating to the skin
On the eye:	Mildly irritating to the eyes.
Respiratory or skin sensitization:	Did not cause sensitization on lab animals Method: OECD Test Guideline 406 Species: Guinea pig

Components

Urea

Germ cell mutagenicity			
Genotoxicity in vitro	Type: Ames Test		Result: Negative

Polymer

Acute oral toxicity	LD 50 Rat:	> 5,000 mg/kg
Acute dermal toxicity	LD 50 Rabbit	> 10,000 mg/kg

12. Ecological Information

Ecotoxicity

Product:

Toxicity to fish LC 50 (Leuciscus idus (Golden orfe)): > 150 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to bacteria EC 50 (Pseudomonas putida): > 2,000 mg/l
Exposure time: 24 h

Components

Urea:

Toxicity to fish LC 50 (Leuciscus idus (Golden orfe)): > 6810 mg/l
Exposure time: 96 h

LC 50 (Poecilia reticulata (guppy)): 17,500 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates EC 50 (Water flea (Daphnia magna)): 3,910 mg/l
Exposure time: 48 h
Method: Static

Polymer:

Toxicity to fish LC 50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203
Test conducted using environmentally representative water.

12. Ecological Information cont.

Toxicity to daphnia and other aquatic invertebrates EC 50 (Water flea (*Daphnia magna*)): > 100 mg/l
Exposure time: 48 h
Method: OECD Guideline Test 202
Test conducted using environmentally representative water.

Toxicity to algae IC 50 (*Pseudokirchneriella subcapitata* (green algae)): > 100 mg/l
Exposure time: 72 h
Method: OECD Guideline Test 201
Test conducted using environmentally representative water.

Persistence and degradability

Product No data available

Polymer

Biodegradability Biodegradation: 40%
Exposure time: 28 d

Bioaccumulation potential

Product: No data available

Components

Urea

Bioaccumulation Species: Green algae (*Chlorella fusca vacuolata*)
Exposure time: 24 h
Concentration: 0.05 mg/l
Bioconcentration factor (BCF): 11,700
Method: Static
Partition coefficient: n-octanol/water log Pow: -2.11

Mobility in soil

Product No data available

Components No data available

13. Disposal Considerations

Appropriate Disposal

Product Must be disposed in accordance with local and national regulations

14. Transport Information

Land transport ADR/RID and GGVS/GGVE (cross-border/domestic):

ADR/RID-GGVS/E Class:

Number/Letter:	Information not known.
Kemler Number:	Information not known.
UN-number:	None assigned.
Designation of goods:	Information not known.
Remarks:	This is not a hazardous material for transportation as defined by USA Dept. of Transportation.

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14. Transport Information cont.

Maritime transport IMDG/GGVSea:

IMDG/GGVSea Class: Information not known.
Page: Information not known.
UN Number: None assigned.
Packaging group: None assigned.
EMS Number: Information not known.

MFAG:

Marine pollutant: Not a marine pollutant
Correct technical name:
Remarks: Not restricted

Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: Information not known.
UN/ID Number: None assigned.
Packaging group: None assigned.
Correct technical name:
Remarks: Not restricted

15. Regulatory Information

Designation according to EC guidelines:

Code letter and hazard designation of product: Information not known.
Risk phrases: WEEL time weighted average 10 mg/m3
Total particulate
Safety phrases: Avoid eye contact and inhalation of dust.
Special designation of certain preparations: Information not known.

National regulations:

California Prop. 65

Proposition 65 warnings are not required for this product based on the results of risk assessment.

SARA Hazard Classification

SARA 311/312 Classification

No SARA Hazards

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

Notification Status

U.S. Toxic Substances Act y (positive listing)

Canada. Canadian Environmental protection Act
DOMESTIC Substances List, (Can. Gaz. Part II, Vol. 133) y (positive listing)

U.S.A. HMIS: Health Hazard: 1 Fire Hazard: 0 Physical Hazard: 0 Personal Protection: B
U.S.A.NFPA: Health: 1 Flammability: 0 Reactivity: 0

16. Other Information

SDS updated May 2015 by Noble Technologies, Inc.

This information is offered in good faith as typical values and not as a product specification. No warranty, either expressed or implied is hereby made. The recommended industrial hygiene and safe handling procedures are believed to be generally applicable. However, each user should review these recommendations in the specific context of the intended use and determine whether they are appropriate.