

Version 1.1

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CSSS-TCO-010-120548

SDS Record Number:

Section 1 Identification of the substance/mixture and of the company/undertaking

Product identifier:

Identification on the label/Trade name: SINOPEC Aqueous Urea Solution AUS 40
 Additional identification: 60493388
 Identification of the product: See section 3
 Index Number: Not available
 REACH registration No.: Not available

Relevant identified uses of the substance and uses advised against:

Identified uses:

Marine applications, rail and other land-based applications

Uses advised against:

Not available.

Details of the supplier of the safety data sheet:

Supplier(Manufacturer): SINOPEC LUBRICANT CO., LTD.
 Address: No. 6 Anning Zhuang West Road, Haidian District, Beijing, P.R.China
 Contact person(E-mail): csc.lube@sinopec.com
 Telephone: 86-400-810-9886
 Fax: 86-10-82410856

Emergency telephone Number:

86-400-810-9886 Only available during office hours (8:30a.m.-17:30p.m. Beijing Time Zone)

Available outside office hours? YES NO

Section 2 Hazards Identification

Classification of the substance/mixture:

GHS Classification Not classified

label elements:

Hazard Pictograms: No hazard pictogram is used.
 Signal Word(S): No signal word is used.
 Hazard Statement: Not applicable.
 Precautionary statement: Not applicable.

Other hazards:

Not available.

Section 3 Composition/information on ingredients

Substance/Mixture: Mixture

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Water	N/A	7732-18-5	231-791-2	60%
Urea	N/A	57-13-6	200-315-5	40%

Section 4 First aid measures**Description of first aid measures:**

In all cases of doubt, or when symptoms persist, seek medical attention.

In case of inhalation:

Move exposed person to fresh air and provide oxygen. Get medical attention if coughing or respiratory discomfort occurs.

In case of skin contact:

As a precaution, remove clothing and shoes if contaminated. Avoid prolonged or repeated contact with skin. Wash with soap and water to remove the material from skin. Get medical attention.

In case of eyes contact:

Wash eyes with water for 15 minutes. If irritation occurs, get medical attention.

In case of ingestion:

If large quantities of this material are swallowed, call a physician immediately. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed:

The product is not classified as harmful to human health effect.

Indication of any immediate medical attention and special treatment needed:

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures**Extinguishing media:****Suitable extinguishing media:**

Products contain large amounts of water, so there is no limit to the types of fire extinguishing medium, the choice of its surrounding area environment should be considered. Spray, carbon dioxide, foam, dry chemical and water fog.

Unsuitable extinguishing media:

Not available.

Special hazards arising from the substance or mixture

Incombustible, fire could cause the release of harmful vapors. When fire may produce monoxide, nitrogen dioxide, nitrogen oxide and other organic matter such as cracking of typical combustible components.

Special fire fighting methods and special protective actions for fire-fighters:

Must wear breathing apparatus when close to the ignition point in confined space.

Section 6 Accidental release measures**Personal precautions, protective equipment and emergency procedures:****For non-emergency personnel:**

Cut off the source of fire, immediately contact the workers, and keep other person stay in safe areas. As much as possible cut off the source of leakage, prevent it access to sewers, drains, water. Comply with relevant fire procedures, and refer to chapter 8 of the safety data sheet.

For emergency responders:	Wear an appropriate NIOSH/MSHA approved respirator if vapor is generated.
Environmental Precautions:	Do not allow material to be released to the environment without proper governmental permits.
Methods for Containment and Cleaning up:	FOR LARGE SPILLS: Remove with vacuum truck or pump to storage/salvage vessels. FOR SMALL SPILLS: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.
Reference to other sections:	See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment. See Section 13 for information on disposal.
Additional information:	Not applicable.

Section 7 Handling and storage

Precautions for safe handling:

Protective measures:	Avoid long or repeated contact with skin, thoroughly clean after contact. Prevent damage of packaging and container, loading and unloading lightly when moving. Operators must receive special training; strictly abide by the operation procedures. To avoid oxidizing reaction. Avoid contact with the strong acid, hydrochloric acid, acid anhydride and chloroform ate. Equipped with corresponding quantity of fire equipment and emergency handling equipment. When loading and unloading of 200 liters of bottled products, should wear protective shoes. Empty containers may remain inside.
Advice on general occupational hygiene:	Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.
Conditions for safe storage, including any incompatibilities:	Keep container sealed, do not store in open or unlabeled containers. Store in a cool, dry place with adequate ventilation, keep away from strong oxidizer, sunlight, heat and combustible. Storage temperature is -5°C~25°C. Store in original container.
Specific end use(s):	Not applicable.

Section 8 Exposure Controls/Personal Protection

Occupational exposure limits	No exposure limits noted for ingredient(s).
Exposure controls:	
Appropriate engineering controls:	Use in a well-ventilated area.
Individual protection measures, such as personal protective equipment:	
Eye/face protection:	If may splash, use safety goggles please.
Hand protection:	Using the resistance to chemical corrosion protective gloves, such as the use of PVC material gloves. Contaminated gloves timely replacement. Thoroughly clean with soap and water after operation.
Body protection:	Under the condition of normal use, in addition to ordinary work clothes, do not need special skin and body protection equipment. In case of splash, according to the actual situation of the workplace to choose suitable, non-permeable safety clothing and safety shoes, recommended material is NBR.
Respiratory protection:	Don't need to wear respiratory protective equipment under the condition of normal use. If engineering controls do not maintain airborne concentrations to a level

which is adequate to protect worker health, need to choose to conform to the requirements of the relevant laws and regulations of respiratory protection equipment. Specific content consult the supplier of respiratory protection equipment.

Thermal hazards:

Wear suitable protective clothing to prevent heat.

Environmental exposure controls:

Avoid discharge into the environment.

According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

Information on basic physical and chemical properties:

Appearance:	Liquid
Colour:	Colorless transparent
Odour:	Slight ammonia cal
Odour threshold:	Not available
pH:	9~11
Melting point/range (°C):	-11.5°C
Freezing point/range (°C):	Not available
Boiling point/range (°C):	100°C(typical data)
Flash point (°C):	Not available
Evaporation rate:	Not available
Flammability limit - lower (%):	Not available
Flammability (solid, gas):	Not available
Ignition temperature (°C):	Not available
Upper/lower flammability/explosive limits:	Not available
Vapour pressure:	6.4kPa@40°C
Vapour density:	Not available
Density:	1087.0~1093.0kg/ m ³ (20°C)
Bulk density (kg/m³):	Not available
Water solubility (g/l):	Soluble in water
n-Octanol/Water (log Po/w):	<1
Auto-ignition temperature:	Not available
Decomposition temperature:	100°C
Viscosity, dynamic (mPa.s):	Not available
Explosive properties:	Not available
Oxidising properties:	Not available
Molecular Formula:	Not available
Molecular Weight:	Not available

Other information:

Fat solubility(solvent– oil to be specified) etc:	Not available
Surface tension:	Not available
Dissociation constant in water(pKa):	Not available
Oxidation-reduction Potential:	Not available

Specific gravity: Not available

Section 10 Stability and reactivity

Reactivity: The substance is stable under normal storage and handling conditions.

Chemical stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Possibility of hazardous reactions: May react with strong oxidizing agents.

Conditions to avoid: Incompatible materials. Extreme heat and high energy sources of ignition.

Incompatible materials: Strong oxidants.

Hazardous decomposition products: When fire may produce monoxide, nitrogen dioxide, nitrogen oxide and other organic matter such as cracking of typical combustible components.

Section 11 Toxicological information

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: Not available

Information on toxicological effects:

Acute toxicity:

LD50(Oral, Rat): > 15000mg/kg

LD50(Dermal, Rabbit): Not available

LC50(Inhalation, Rat): Not available

Skin corrosion/Irritation: Not classified

Serious eye damage/irritation: Not classified

Respiratory or skin sensitization: Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard:: Not classified

Section 12 Ecological information

Toxicity:

Urea(CAS#57-13-6)

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
EC50	> 10 000 mg/L	24h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: Expected easily biodegradable.

Bioaccumulative potential: Low potential for bio-accumulation.

Mobility in soil: Weaker soil adsorption.

Results of PBT&vPvB assessment: Not available.

Other adverse effects: Not available.

Section 13 Disposal considerations

Waste treatment methods:	The material should be disposed of by incineration in a chemical incinerator in compliance with national and regional requirements.
Product / Packaging disposal:	If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Section 14 Transport information

	Land transport(ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	Not regulated	Not regulated	Not regulated
UN Proper shipping name	Not regulated	Not regulated	Not regulated
Transport hazard Class	Not regulated	Not regulated	Not regulated
Packaging group	Not regulated	Not regulated	Not regulated
Environmental hazards	No	No	No
Special precautions for user	See section 2	See section 2	See section 2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information

Safety, health and environmental regulations specific for the product in question

Controlled Narcotic Drugs (Misuse of Drugs Act, First Schedule, Part I, II & III)

Not regulated.

Controlled Specified Drugs (Misuse of Drugs Act, Fourth Schedule)

Not regulated.

Prior Informed Consent (PIC) Substances (Environment Protection and Management Act, 2nd Schedule, Part 1, Jul. 1, 2013)

Not regulated.

Chemical Weapons Prohibition (Act)

Not applicable.

Environmental Protection and Management (Hazardous Substances) Regulations

Not applicable.

Environmental Public Health Act

Not applicable.

International regulations

Montreal Protocol

Not applicable.

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16 Other information

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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