



# Material Safety Data Sheet

This MSDS is authoring based on the data supplied by and identified on behalf of the client.

Sample Name: Diesel Engines NOx Reduction Agent —Aqueous  
Urea 40% Solution (AUS40)

Client Name: Dongguan Qianjing Environmental Protection  
Equipment Co., Ltd

Client Address: Dazhou Industrial Zone, Dafen Community, Wanjiang Street,  
Dongguan City

MSDS No.: 19863172

Issue Date: January 22, 2022

Signed for and on behalf of  
UG (shenzhen) Co., Ltd.

David Chen

Approved signatory



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## 1. Identification of the Substances/Preparation and of the Company/Undertaking

### Product Details

**Product Name:** Diesel Engines NOx Reduction Agent —Aqueous Urea 40% Solution (AUS40)

**Chemical common name or trade name:** Marine urea solution

**End use:** Used in the exhaust treatment of nitrogen oxides from diesel engines of National IV and above models

**Company:** Dongguan Qianjing Environmental Protection Equipment Co., Ltd

**Address:** Dazhou Industrial Zone, Dafen Community, Wanjiang Street, Dongguan City

**Tel.:** +86-769-26380198

**Fax:** +86-769-27204233

**Emergency telephone number:** +86-769-26380198

## 2. Hazards Identification

### Classification of the substance or mixture

Corrosive to metals (Category 1)

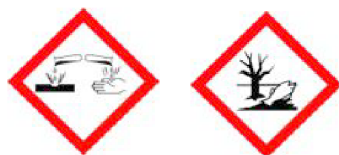
Skin irritation(Category 3)

Eye irritation(Category 2B)

Hazardous to the aquatic environment - Chronic hazard(Category 2)

### GHS Label elements

**Pictogram(s):**



**Signal word:** Danger

### Hazard statements:

H290 May be corrosive to metals.

H316: Causes mild skin irritation

H320: Causes eye irritation

H411: Toxic to aquatic life with long lasting effects.

### Precautionary statements:

P234: Keep only in original container.

P273: Avoid release to the environment

P280: Wear eye protection/face protection

### Response Precautionary Statements:

P390: Absorb spillage to prevent material damage.

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P391: Collect spillage

P332+313: If skin irritation occurs: Get medical advice/attention

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P337+313: If eye irritation persists get medical advice/attention

## Storage Precautionary Statements:

P406: Store in corrosive resistant/ container with a resistant inner liner.

## Disposal Precautionary Statements:

P501: Dispose of contents and container in accordance with local/regional/national/international regulations.

## Description of any hazards not otherwise classified

No information available.

### 3. Composition/Information on Ingredients

#### Chemical Characterization

Composition: Mixture of the following ingredients.

Substance	CAS #	Content
Water	7732-18-5	60%
Urea	57-13-6	40%

### 4. First-Aid Measures

**Eye Contact:** Immediately flush eyes with plenty of water for several minutes, occasionally lifting the upper and lower eyelids. If irritation occurs and persists, contact a doctor.

**Skin Contact:** Remove contaminated clothing and shoes. Wash off with soap and plenty of water. If irritation occurs and persists, contact a doctor.

**Inhalation:** Remove to fresh air. Get medical attention if feel unwell.

**Ingestion:** Rinse mouth with water. Consult a physician.

**Advice to doctor:** Treat symptomatically.

### 5. Fire-Fighting Measures

**Flammability of the Product:** Non combustible.

**Suitable Extinguishing Media:** Use extinguishing media suitable for surrounding area.

**Unsuitable extinguishing media:** There is no restriction on the type of extinguisher which may be used.

**Special hazards arising from the substance or mixture:** Decomposition products formed under fire conditions. - Nitrogen oxides, etc..

**Advice for firefighters:** Wear self-contained breathing apparatus and standard fire fighting equipment for

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firefighting if necessary. Standard procedure for chemical fires.

## 6. Accidental Release Measures

**Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid contact with skin and eyes. For personal protection see section 8.

**Environmental precautions:** Do not let product enter drains.

**Methods and materials for containment and cleaning up:** 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. FOR LARGE SPILLS: Collect spillage with suitable tools, and then place in container for recycle or disposal according to local regulations (see section 13).

## 7. Handling and Storage

### Handling

#### Advice on Safe Handling:

Avoid inhalation of concentrated vapour or mist. Avoid direct contact with skin and eyes.

For personal protection see section 8.

Wash thoroughly after handling

Do not exposure to heat and flame.

### Storage

#### Requirements for Storage:

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

## 8. Exposure Controls/Personal Protection

**Exposure Limits:** Not established.

**Engineering Controls:** Provide adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Provide safe shower and eye wash fountain.

#### Personal protective equipment:

**Respiratory Protection:** None required under normal usage.

**Eyes Protection:** None required under normal usage. Use equipment for eye protection if liquid in-eye risk exists.

**Body Protection:** General work suit is enough under normal usage. If necessary, wear complete chemical-resistant clothing.

**Hands Protection:** Handle with chemical-resistant gloves(such as butyl rubber gloves).

**Other Protections:** Wash hands before eating and drinking.

## 9. Physical and Chemical Properties

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## General Information

Form:	Liquid
Color:	Colorless transparent
Odor:	Slight odor
pH:	9.8-10
Melting Point/Range:	N/A
Boiling Point/Range:	N/A
Percent Volatility:	N/A
Flash Point:	Not combustible.
Density:	1.10
Vapor Pressure:	N/A
Vapor Density:	N/A
Evaporation Rate & Reference:	N/A
Solubility in Water:	Miscible with water.
Explosion Limits in Air - Upper :	N/A
Explosion Limits in Air - Lower:	N/A

## 10. Stability and Reactivity

**Stability:** Stable under recommended storage condition.

**Hazardous reactions:** None hazardous reactions known.

**Incompatibility (Materials to Avoid):** Strong oxidizing materials.

**Conditions to Avoid:** Extreme heat.

**Hazardous Decomposition and/or Combustion Products:** Product does not decompose at ambient temperatures.

## 11. Toxicological Information

**Acute toxicity:** No data available.

**Skin corrosion/irritation:** Causes mild skin irritation.

**Serious eye damage/irritation:** Causes eye irritation.

**Respiratory sensitization:** No sensitizing effects known.

**skin sensitization:** No sensitizing effects known.

**Carcinogenicity:** IARC: Not classifiable as to its carcinogenicity to humans

**Germ Cell Mutagenicity:** No known significant effects or harm.

**Reproductive Toxicity:** No known significant effects or harm.

**STOT-Single Exposure:** No known significant effects or harm.

**STOT-Repeated Exposure:** No known significant effects or harm.

**Aspiration Hazard:** No known significant effects or harm.

**Potential Health Effects:**

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**Inhalation:** May cause respiratory irritation if inhaling concentrated vapor.

**Skin Contact:** Causes mild skin irritation.

**Eye Contact:** Causes eye irritation if liquid in - eye.

**Ingestion:** May be harmful if ingested.

## 12. Ecological Information

**Ecotoxicity:** No data available.

**Bioaccumulative potential:** No data available.

**Persistence and Degradability:** No data available.

**Results of PBT and vPvB assessment:** PBT: Not applicable. vPvB: Not applicable.

**Other adverse effects:** Toxic to aquatic life with long lasting effects. Do not largely release to drains and water course.

## 13. Disposal Considerations

### Safe handling and methods of disposal

Observe all federal, state, and local environmental regulations. Recycle as possible. Offer surplus and non-recyclable products to a licensed disposal company.

## 14. Transport Information

### ADR/RID Information

**ADR-UN Number:** Not classified for transport

**ADR-Class:** Not classified for transport

**ADR-Shipping Name:** Not classified for transport

**ADRPacking Group:** Not classified for transport

### IATA/ICAO Information

**IATA-UN Number:** Not classified for transport

**IATA-Class:** Not classified for transport

**IATA-Shipping Name:** Not classified for transport

**IATA-Label:** None

**IATA-Packing Group:** Not classified for transport

**IATA-S.P.:** None

**IATA-ERG:** None

### IMO/IMDG Information

**IMDG-Marine Pollutant:** No

**IMDG-UN Number:** Not classified for transport

**IMDG-Class:** Not classified for transport

**IMDG-Shipping Name:** Not classified for transport

**IMDG-Packing group:** Not classified for transport

**IMDG-Storage Category:** Not classified for transport

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## 15. Regulatory Information

### International Regulations

Safety, health and environmental regulations/legislation specific for the substance or mixture

No information available.

### Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

## 16. Other Information

### Abbreviations:

CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds

pH - Relates to hydrogen ion concentration - this value will relate to a scale of 0 - 14, where 0 is highly acidic and 14 is highly alkaline

OSHA- Occupational Safety and Health Administration

NTP – National Toxicology Program

IARC- International Agency for Research on Cancer

ACGIH – The American Conference of Governmental Industrial Hygienists

ADR –Agreement on Dangerous Goods by Road

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

ICAO –International Civil Aviation Organization

IMDG - International Maritime Dangerous Goods

IMO – International Marine Organization

### Further Information:

-This safety data sheet was prepared in accordance with UN GHS Rev.8.

-This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

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