

Printing date: 04.02.2018 Version No: 5 Revision: 04.02.2018

SECTION 1: Identification of the substance/mixture and of the company/undertaking

· 1.1 Product identifier

· Trade name: 32,5 % Urea Solution

- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Sector of Use SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
- · Application of the substance / the preparation:

Chemical has an application for reducing NOx from Flue gases i.e. as De-NOx reducing agent.

- · Uses advised against: No further relevant information available.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

Qatar Fertiliser Company

P.O. Box 50001, Mesaieed, Qatar

Tel.: (+974) 44228888 Fax: (+974) 44770347 Email: mktg@qafco.com.qa

· 1.4 Emergency telephone number:

For Spill, Leak, Fire, Exposure, or Accident

Call CHEMTREC Day or Night

Within USA and Canada: 1-800-424-9300

Outside USA and Canada: +1703-741-5970 and +1-703-527-3887 (collect calls accepted)

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

The product is not classified according to the CLP regulation.

- · Classification according to Directive 67/548/EEC or Directive 1999/45/EC Void
- $\cdot \textit{Information concerning particular hazards for human and environment:} \\$

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

· Classification system:

The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · 2.3 Other hazards
- · Results of PBT and vPvB assessment
- · **PBT:** No
- · v**P**v**B**: No



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SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description:		
CAS: 57-13-6	urea	31.5 - 33.5%
EINECS: 200-315-5		
Reg.nr.: 01-2119463277-33-0084		
CAS: 7732-18-5	water, distilled, conductivity or of similar purity	66.5 - 68.5%
EINECS: 231-791-2		
· Dangerous components:		
CAS: 1336-21-6	ammonia	max. 0.3%
EINECS: 215-647-6	□ C R34; Ы N R50	
Index number: 007-001-01-2	Skin Corr. 1B, H314; 🥸 Aquatic Acute 1, H400	
Reg.nr.: 01-2119488876-14-0090		

· Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Take affected persons out of danger area and lay down.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Remove contact lenses, if present and easy to do. Continue rinsing.

· After swallowing:

Rinse out mouth and then drink plenty of water.

Induce vomiting and call for medical help.

· 4.2 Most important symptoms and effects, both acute and delayed

Breathing difficulty

Nausea

Sensitivity to light

· 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire extinguishing methods suitable to surrounding conditions.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- · 5.2 Special hazards arising from the substance or mixture

In case of fire, the following can be released:

Carbon monoxide

Carbon dioxide

Nitrogen oxides (NOx)

Under certain fire conditions, traces of other toxic gases cannot be excluded.

- · 5.3 Advice for firefighters
- · Protective equipment: Wear self-contained respiratory protective device.



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· Additional information

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.

Wear protective equipment. Keep unprotected persons away.

Particular danger of slipping on leaked/spilled product.

· 6.2 Environmental precautions:

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose of the material collected according to regulations.

· 6.4 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 disposal information.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Use only in well ventilated areas.
- · Information about fire and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- · Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

Store in a cool location.

- · Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions:

Store in a cool place.

Keep container tightly sealed.

Store receptacle in a well ventilated area.

Protect from heat and direct sunlight.

The tank/container should be placed within a bunker.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- · 8.1 Control parameters
- · Ingredients with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Do not eat, drink or smoke when using this product.



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The usual precautionary measures are to be adhered to when handling chemicals.

- Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
- · Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- · Eye protection: Safety glasses
- · Body protection: Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical a · General Information	ina chemicai properues
· Appearance:	
Form:	Liquid
Colour:	Colourless
· Odour:	Ammonia-like
· Odour threshold:	Not determined.
pH-value at 20 °C:	7.5 - 9.5
· Change in condition	
Melting point/Melting range:	~ -11 -12 °C
Boiling point/Boiling range:	> 100 °C
Flash point:	Not determined.
Flammability (solid, gaseous):	Not applicable.
· Ignition temperature:	Not determined.
Decomposition temperature:	Not determined.
· Self-igniting:	Product is not selfigniting.
Danger of explosion:	Product does not present an explosion hazard.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Oxidising properties	No
· Vapour pressure:	Not applicable.
Density:	Not determined.
Relative density	Not determined.
· Vapour density	Not determined.
Evaporation rate	Not determined.
· Solubility in / Miscibility with	
water:	Fully miscible.



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· Viscosity:		
Dynamic:	Not determined.	
Kinematic:	Not determined.	
· 9.2 Other information	No further relevant information available.	

SECTION 10: Stability and reactivity

- · 10.1 Reactivity
- · 10.2 Chemical stability No decomposition if used and stored according to specifications.
- · Thermal decomposition / conditions to be avoided: To avoid thermal decomposition do not overheat.
- · 10.3 Possibility of hazardous reactions

Reacts with sodium hyprochlorite or calcium hypochlorite to forming explosive nitrogen trichloride.

· 10.4 Conditions to avoid

Keep away from heat and direct sunlight.

Copper, aluminium and zinc alloys, acrolein, mineral acids, dimehtylsulphate, mercury, chlorine, silver.

· 10.5 Incompatible materials:

Reacts with acids, alkalis and oxidising agents.

Reacts with certain metals.

Corrodes copper and brass.

Corrodes aluminium.

Acrolein

· 10.6 Hazardous decomposition products:

Ammonia

Nitrogen oxides (NOx)

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity:
- $\cdot \textit{LD/LC50} \textit{ values relevant for classification:} \\$

57-13-6 urea

Oral LD50 8471 mg/kg (Rat)

- · Primary irritant effect:
- · on the skin: No irritant effect.
- · on the eye: No irritating effect.
- · Sensitisation: No sensitising effects known.
- · Additional toxicological information:

The product is not subject to classification according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version.

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

SECTION 12: Ecological information

- · 12.1 Toxicity
- · Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.



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- · 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow product to reach ground water, water course or sewage system.

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** No
- · **vPvB:** No
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- $\cdot \textit{Recommendation:} \ \textit{Must be specially treated adhering to official regulations.}$
- · Uncleaned packaging
- **Recommendation:** Disposal must be made according to official regulations.
- · Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information		
· 14.1 UN-Number · ADR, IMDG, IATA	Void	
· 14.2 UN proper shipping name		
· ADR, IMDG, IATA	Void	
· 14.3 Transport hazard class(es)		
· ADR, IMDG, IATA · Class	Void	
· 14.4 Packing group · ADR, IMDG, IATA	Void	
· 14.5 Environmental hazards: · Marine pollutant:	No	
· 14.6 Special precautions for user	Not applicable.	
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.		
· Transport/Additional information:	Not dangerous according to the above specifications.	
· UN ''Model Regulation'':	-	

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.



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SECTION 16: Other information

Disclaimer clause

To the best of our knowledge, the information provided in this Safety Data Sheet is accurate as at the date of its issue. The information it contains is being given for safety guidance purposes and relates only to the specific material and uses described in it. This information does not necessarily apply to that material when combined with other material(s) or when used otherwise than as described herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may represent unknown hazards and should be used with caution.

· Relevant phrases

H314 Causes severe skin burns and eye damage.

H400 Very toxic to aquatic life.

R34 Causes burns.

R50 Very toxic to aquatic organisms.

· Department issuing SDS:

Only Representative (§8 REACH)

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· Abbreviations and acronyms:

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

UN: United Nations (also UNO: United Nations Organization)

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

ASTM: American Society for Testing and Materials

WAF: Water Accommodated Fraction

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International

Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

* Data compared to the previous version altered.