

CARGO INFORMATION SCHEME			
Chemical name	Urea Amonium Nitrate Solution	Last update	04/20/99
Common names	UAN solution	UN number	None
Chemical formular	NH ₂ CONH ₂ NH ₄ NO ₃ NH ₃ H ₂ O mixtures	MFAG number	Table 725
Chemical family		MARPOL Annex	II
Colour	Clear with brown anti corrotion particles on top	Annex II pollution cat.	C
Odour	Slight ammonia-like	IMO Ships type	3
Own reaction	None	Density @ 15°C	1,3000
Reaction with water	None	Correction factor/°c	0,00060
Reaction other	Yes, see special instructions	Petroleum tables used	None
Solubility with water	Yes	Melting point °c	.0
Compatibility number	Group 6	Boiling point °c	100
Separate from no. (USCG)	FOSFA regulations	Flash point °c	None
Type of toxic test tubes		Auto-ignition point °c	None
Toxicity in case of fire	Yes	Viscosity	High
Fire extinguishing agent	Water	Odour limit ppm	
Special fire procedure	Do not use CO ₂ , chemical powder or foam	Explos. limits Vol %	
Spill or leak procedure	Stop pump. Stop leakage. Avoid cargo to run into water. Fry up and flush after with water	Vapour press kPa/20	Varies
		Vapour dens.rel to air	Varies
SAFETY AND FIRST AID INFORMATION			
Main hazard	Ammonia vapour cause water in lungs	Health risk	Yes
Symptoms if exposed	Irritation and breathing problems	TLV ppm	
Personal protection aid	Skin and eye protection. Avoid inhalation of vapour. Full face mask with air supply in tankamosphere	Is it a cancer agent	No
		Is antidote available	No
First aid			
Eye contact	Flood gently with water		
Skin contact	Remove contaminated clothing and flush affected areas with water		
Inhalation	Fresh air		
Ingestion	Drinh water and induce vomiting. Seek medical assistance promptly.		
CARGO HANDLING			
Coating requirements	No	Voyage temp. °c	No heating

Wall wash tests	No	Discharge temp. °c	No heating
Previous cargo(es)	FOSFA regulations	Preheating of tanks	No
Fresh water flush	Yes	Cirkulation on voyage	No
Demiwater flush	No	Inhibitor certificate	No
Condition prior to loading	Clean and dry	Sweeping after disch.	No
Remarks		Heat adjacent	No
Remarks			
TANKCLEANING - after discharge			
Prewash (not marpol)	No		
Ordinary bw wash	yes, lots of lukewarm water		
Recirculation	No		
Steaming	No		
Removal of rob	No		
Hand hosing/high press	No		
Chemicals for washing	No		
SPECIAL INSTRUCTIONS			
<p>Urea is a clear colourless product. Any recidues in line from previous cargo will easy be seen on top of cargo. As always the line must be very clean, but as an extra safety to minimise eventual damage to cargo, flush the line into the foremost tank on side and take a footsample so you do not get contaminated cargo in all tanks. Brown particles on top of cargo might be anti-corrosion inhibitor. If there is any claim about this then make a comparison between top of cargo in shoretank. Pure urea is non-toxic and non-flammable, but it contains ammonia which in higher concentrations is toxic and flammable. Urea reacts with oxidising material, combustible material, wood chips, organic materials, sulphur, metal, finely subdivided lead, zinc, galvanised iron or acids.</p>			