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## Safety Data Sheet, rev. 01

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### 1. IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

#### 1.1 Identification of the product

Trade name: **MUF**  
Chemical name: Melamine urea formaldehyde powder resin  
CAS number:  
CE number:  
Empiric formula:

#### 1.2 Identification of the Company

Company: SPREA MISR FOR CHEMICALS & PLASTICS  
Address: 10<sup>TH</sup> OF RAMADAN CITY  
Place / Country: EGYPT  
Telephone: +20 15 410100  
Company emergency number: +20 15 410100  
+20 12 3903074 – 74

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### 2. COMPOSITION/INFORMATION ON INGREDIENTS

The powder resin MUF contains:

0.5 %max	Formaldehyde	N.67/548/CEE: 605-001-00-5	CAS: 50-00-0	EINECS: 200-001-8	
		Classification: Carc. Cat. 3	(Carcinogenic category 3)		R40
		T	(Toxic)		R23/24/25
		C	(Corrosive)		R34
			(Sensitizing)		R43

min. 97,5% Polymer Melamine Urea Formaldehyde, excipient, catalyst.

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### 3. HAZARDS IDENTIFICATION

According to the law in force, the product should not be considered hazardous.  
The risks deriving from FORMALDEHYDE should however be taken into account.  
The FORMALDEHYDE is a powerful irritating agent for eyes, skin and respiratory tract.  
Continuous exposures to formaldehyde could engender chronic respiratory disease.

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### 4. FIRST AID MEASURES

Eyes contact:	Rinse thoroughly with water for 15 minutes; if necessary consult a specialist.
Skin contact:	Remove contaminated clothing immediately. Wash skin exposed to contact thoroughly with flushing water. If irritation occurs, seek medical attention.
Ingestion:	Immediately rinse the mouth with water. If swallowing has occurred, drink plenty of water or milk and induce vomiting. Seek medical attention.
Inhalation:	The patient is to be removed immediately from the contaminated premises to rest in a well ventilated area. Artificial respiration is not recommended. Seek medical attention.

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### 5. FIRE-FIGHTING MEASURES

The product is virtually non-flammable.  
Fires involving the product can be extinguished using atomized water, foam, carbon dioxide or powder extinguishers.  
When heated to decomposition, the product can emit toxic fumes of NOx.

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### 6. ACCIDENTAL RELEASE MEASURES

Thoroughly ventilate contaminated area. Avoid formation of dust. Do not use water. Try to prevent the material from entering into sewer and surface or underground waters or in the ground.

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### 7. HANDLING AND STORAGE

Loading, unloading and handling operations must be done by skilled staff.  
Operate with caution during the cut and the emptying of the bag, avoid to raise the dust. To minimize occupational exposure may be helpful the use of respiratory protective equipment, clothes, glasses, rubber gloves. Such operation would have to be done in confined atmosphere equipped of effective aspiration.  
When the resin in powder is dispersed in water, free formaldehyde is developed in concentration not above 0.5% ; in such case the watery dispersion could have irritant effects.  
Avoid absolutely the contact with the skin and adopt suitable individual protective equipments (see also point 8).  
The MUF powder resins do not have any storage problems: in dry locations at moderate temperature, they can be conserved without any alteration of their properties for a duration of about 6 months.  
For an optimal conservation, keep the temperature of the resin between 20 and 25 °C.



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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

The preparation contains FORMALDEHYDE; the suggested limits of exposure are:

FORMALDEHYDE gas (ACGIH 2001) TLV STEL (Ceiling): 0,30 ppm - 0,37 mg/m<sup>3</sup> (A2)  
(A2: Suspected Human Carcinogen).

During handling, use rubber gloves.

Provide eyes protection with safety goggles.

Mask for powders (powders).

Use clothing that provides comprehensive protection to the skin.

If the formaldehyde vapors concentration in the working areas reach the TLV, use breathing apparatus with cartridge for organic vapors (type A 1 - BROWN).

Don't smoke, eat or drink in the working places.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	solid
Color:	white powder
Odor:	slightly pungent
Solubility in water:	mixable
Solubility in organic solvents:	DMF, dioxane (partially soluble)
Density:	about 0,5 kg/dm <sup>3</sup> about
pH ( 50 % water solution):	8.0 – 9.0
Melting point:	not definable (decomposition above 250°C)
Boiling point:	not definable
Flash point (closed cup):	about 20 mg/l
Explosive properties:	Fine particles dispersed in air may cause dust explosion.
Explosion limits in air (% volume):	not definable
Auto-ignition temperature:	400 °C
Dangerous reactions:	with strong alkali, oxidizers and acids.

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### 10. STABILITY AND REACTIVITY

Melamine urea formaldehyde powder resin products are thermosetting resins in acid media.

Avoid the contact with acids, ammonium salts and strong alkali.

Keep away from heat sources. When heated to decomposition (>250°C), the product can emit toxic fumes.

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### 11. TOXICOLOGICAL INFORMATION

Acute toxicity: LD<sub>50</sub> (Rat, oral): 100 mg/Kg  
(Formaldehyde CAS 50-00-0): LD<sub>50</sub> (Rabbit, skin): 270 mg/Kg  
LC<sub>50</sub> (Rat, inhalation): 0,578 mg/l/4h

Sensibilizing power: Continuous contact with formaldehyde is sensibilizing.  
(Formaldehyde CAS 50-00-0):

Carcinogenicity: The IARC reports inadequate evidence of carcinogenicity for man  
(Formaldehyde CAS 50-00-0): and sufficient evidence for laboratory tests animals. The evaluation regards the formaldehyde gas.  
CE: Substances classified carcinogenic category 3.

Mutagenicity : The tests performed on lab animals have given inhomogeneous  
(Formaldehyde CAS 50-00-0): results, but generally negative.

Effect on the reproduction: The formaldehyde has not demonstrated teratogenic effects  
(Formaldehyde CAS 50-00-0): on mouse. No data exist on this subject for man.

Chronic toxicity: (\*) The available literature does not seem to indicate particular effects resulting from  
inhalation by man. Possible allergic sensibilization (formaldehyde).

Irritating power / Corrosive action: (\*) skin (Draize test): weakly irritant  
eyes (Draize test): weakly irritant

(\*)From other sources, reported for similar products

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### 12. ECOLOGICAL INFORMATION

Use according to the good working practice, avoiding to disperse the product into the environment.

Degradation: The Formaldehyde is degraded by various bacteria in the ground.  
The Melamine urea formaldehyde powder resin undergo one gradual degradation if dispersed on the ground.

Acute toxicity: The Melamine urea formaldehyde powder resin has a low toxicity for the aquatic fauna and flora. However the degradation of the resin causes the release of formaldehyde, potentially dangerous for the fish and the algae

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### 13. DISPOSAL CONSIDERATIONS

The disposal must be made by a site approved by the Local Authority. In so doing, comply with the local and national regulations currently in force.

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### 14. TRANSPORT INFORMATION

Road transport:	RID / ADR	Class :	not classified
Railway transport:	CT / FS	Class :	not classified
Sea transport:	IMDG code	ONU n° :	not classified
Air transport:	ICAO / IATA	ONU n° :	not classified

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### 15. REGULATORY INFORMATION

The preparation contains formaldehyde; the risks deriving from this substance are therefore to be taken into account during the handling, especially during reconstitution and water dispersion handling.

Symbol of danger for health:

**Xi** IRRITANT

- R 43 May cause sensitization by skin contact
- S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
- S 36/37 Wear suitable protective clothing and gloves
- S 51 Use only in well-ventilated areas

Contents: Formaldehyde.

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### 16. OTHER INFORMATION

R Phrases (paragraph 2 - 3):

- R23/24/25 Toxic by inhalation, in contact with skin and if swallowed.
- R34 Causes burns.
- R40 Limited evidence of a carcinogenic effect.
- R43 May cause sensitization by skin contact.

Bibliographic References:

- SAX, Dangerous properties of industrial materials 1984 p.1451
- UNITED NATIONS, Transport of dangerous goods 1986
- ACGIH, Threshold limit values for chemical substances 2001
- IARC 1987
- J.F. WALKER, Formaldehyde - third edition 1975
- 91 / 325 / CEE
- 91 / 326 / CEE
- INRS Cahier de notes documentaires n° 134, 1er trimestre 1989
- Banque de données ECDIN - Ispra 1993

This product must be stored, handled and used according to the hygiene and safety standards dictated by common industrial practice in conformity to current regulations. The information contained here above is based on our current knowledge. We are not responsible for the use of this information.