

MATERIAL SAFETY DATA SHEET  
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IDENTIFICATION  
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PRODUCT NAME:	UREA	MOL WT:	60.06
PRODUCT # :	5505	CAS # :	52-13-6
CHEMICAL NAME:	UREA	RTECS NO:	YR6250000
SYNONYMS:	CARBAMIDE CARBONYL DIAMIDE	FORMULA:	(NH <sub>2</sub> ) <sub>2</sub> CO

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PHYSICAL DATA  
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BOILING POINT:	N/A	SPECIFIC GRAVITY:	1.34 @ 20 C
MELTING POINT:	132.7 C	VAPOR DENSITY:	N/A
VAPOR PRESSURE:	N/A	EVAPORATION RATE:	N/A
PERCENT VOLATILE:	N/A	SOLUBILITY IN WATER:	VERY SOLUBLE

APPEARANCE AND ODOR:  
WHITE CRYSTALS, DEVELOPS ODOR OF AMMONIA

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HAZARDOUS INGREDIENTS  
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UREA: SEE "HEALTH HAZARD DATA"

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FIRE AND EXPLOSION HAZARD DATA  
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FIRE HAZARD: NON COMBUSTIBLE

EXTINGUISHING MEDIA: ANY SUITABLE TO EXTINGUISH SUPPORTING FIRE.

EXPLOSION HAZARD: EXPLOSIVE MIXTURES MAY BE FORMED WITH HYDROCHLORITES.

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

IF HEATED ABOVE MELTING POINT (132.7 C) DECOMPOSITION RELEASES BIURET,  
AMMONIA GAS AND CYANURIC ACID (TOXIC)

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HEALTH HAZARD DATA  
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TOXICITY DATA: NO TLV ESTABLISHED; ORAL RAT LD50 14,300 MG/KG  
MUTATION AND ANIMAL TUMORIGENIC DATA IS POSITIVE

HEALTH HAZARDS:

INHALATION: HEAVY EXPOSURE TO DUST COULD CAUSE SORE THROAT,  
COUGHING AND SHORTNESS OF BREATH.

INGESTION: SORE THROAT, ABDOMINAL PAIN

SKIN CONTACT: IRRITATION POSSIBLE

EYE CONTACT: IRRITATION AND PAIN

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: MOVE TO FRESH AIR. IF BREATHING HAS STOPPED, GIVE ARTIFICIAL RESPIRATION AND OBTAIN MEDICAL ATTENTION.

INGESTION: IF CONSCIOUS, GIVE SEVERAL GLASSES OF WATER THEN INDUCE VOMITING WITH FINGER TO BACK OF THROAT. GET MEDICAL ATTENTION.

SKIN EXPOSURE: WASH THOROUGHLY WITH SOAP AND WATER. IF IRRITATION DEVELOPS GET MEDICAL ATTENTION.

EYE EXPOSURE: WASH EYE WITH WATER FOR AT LEAST 15 MINUTES. IF IRRITATION PERSISTS GET MEDICAL ATTENTION.

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REACTIVITY DATA  
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STABILITY: STABLE

INCOMPATIBILITY:

SODIUM NITRITE, NITROSYL PERCHLORATE, HYPOCHLORITES, STRONG OXIDIZING AGENTS (PERMANGANATE, DICHROMATE, NITRATE, CHLORINE), AND ALKALIES.

HAZARDOUS DECOMPOSITION PRODUCTS:

MELTS AND DECOMPOSES GENERATING AMMONIA, BIURET AND CYANURIC ACID (TOXIC)

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

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SPILL OR LEAK PROCEDURES  
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STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SWEEP OR SCOOP UP AND DISPOSE OF IN COMPLIANCE WITH ALL CURRENT LOCAL, STATE AND FEDERAL REGULATIONS. RINSE AREA WITH WATER. CAUTION, MATERIAL BECOMES SLIPPERY WHEN WET.

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SPECIAL PROTECTION INFORMATION  
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RESPIRATORY PROTECTION:

FULL FACE RESPIRATOR WITH DUST CARTRIDGE FOR SPILL CLEAN UP AND EMERGENCIES.

VENTILATION:

LOCAL EXHAUST AT WORK BENCH IF MATERIAL CREATES WORKER DISCOMFORT.

PROTECTIVE GLOVES: RUBBER GLOVES

EYE PROTECTION: GOGGLES

OTHER PROTECTIVE EQUIPMENT:

LAB COAT OR COVERALLS. CONTACT LENSES SHOULD NOT BE WORN WHEN WORKING WITH THIS MATERIAL. HAVE SAFETY SHOWER AND EYEWASH AVAILABLE.

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SPECIAL PRECAUTIONS  
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PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:

STORE IN COOL DRY PLACE AWAY FROM SOURCES OF HEAT AND STRONG OXIDIZING AGENTS.

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THE ABOVE INFORMATION AND RECOMMENDATIONS ARE BELIEVED TO BE CORRECT AND ARE PRESENTED IN GOOD FAITH. THE INFORMATION SHALL NOT BE TAKEN AS BEING ALL INCLUSIVE AND IS TO BE USED ONLY AS A GUIDE. BRL SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.  
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