

HALL CHEM MFG. INC.1270 rue Nobel
Boucherville Qc J4B 5H1

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MATERIAL SAFETY DATA SHEET**EMERGENCY : CANUTEC (613) 996-6666****MSDS : DC650-2****PRODUCT IDENTIFICATION AND USE****NAME OF PRODUCT :** Diesel Exhaust fluid (DEF)**USE OF PRODUCT :** Stabilized urea premix for use in reducing nitrogen oxides in diesel engines.**TRANSPORTATION OF DANGEROUS GOODS****SHIPPING NAME :****WHMIS CLASSIFICATION:** NOT REGULATED**P.N.I. :****PRIMARY CLASS :** Not regulated**PACKING GROUP :****SUBSIDIARY CLASS : N/A****COMPONENTS**

COMPOSITION	% V/V	CASE #	LD ₅₀ mg/kg Oral/rat	LC ₅₀	TLV ppm 8h
Urea	30-35	57-13-6	8471	N/A	

PHYSICAL CHARACTERISTICS

PHYSICAL STATE : Liquid	APPEARANCE : colorless	ODOR : Slight Ammonia	ODORTRESHOLD : Not available
VAPOR TENSION :	VAPOR DENSITY : 0.6H ₂ O	EVAPORATING RATE : <1	
BOILING RANGE : N/A	FREEZING POINT : -11°C (12F)	pH : 7.5-9.5	
DENSITY : 1.09-1.11 at 20°C (68°F)	DISTRIBUTION FACTOR WATER/OIL : Not available	SOLUBILITY IN WATER (25°C) : 100%	

REACTIVITY DATA**CHEMICAL STABILITY :** Stable under normal storage conditions.**INCOMPATIBILITY WITH OTHER PRODUCTS :** Avoid heat and severe oxidizing conditions (e.g. hydrogen peroxide, chlorine, nitric acid) and strong acids.**REACTIVITY CONDITIONS :** No hazardous polymerization.

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ABSORPTION WAYS			CONTACT	
SKIN	INHALATION ✓	INGESTION ✓	WITH SKIN ✓	EYES ✓

EFFECTS OF EXPOSURE TO PRODUCT : Product can irritate mucus glands. High doses can provoke headaches, drowsiness, nausea, dizziness and fainting. Inhalation may aggravate cases of emphysema and bronchitis. Repeated contact with skin provokes irritations, dryness of the skin and cracking of the skin.**PREVENTIVE MEASURES****PROTECTIVE EQUIPMENT :** Gloves, security glasses.**GLOVES :** Impervious**RESPIRATORY SYSTEM :** Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In misty atmospheres, use an approved mist respirator.**OCULAR INSTRUMENT :** Chemical splash glasses.**CLOTHING :****TECHNICAL CONTROL :** At elevated temperatures, special ventilation may be required even if the flash point has not been exceeded. Flammable mists or aerosols can be generated below the flash point of high boiling liquids. Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.**PROCEDURE IN CASE OF LEAKS/SPILLS :** Spill may contaminate water supplies or pollute public waters. Stop release and prevent flow to sewers or public waters. Notify fire and environmental authorities. Restrict water use for cleanup. This material can create a dangerous slipping hazard on any hard surface. Spread a granular cover (such as sand) or provide open grating on walkways. Impound and recover large land spill. Soak up small spills with inert solids and collect in suitable disposal containers. This material is water soluble and may float or sink. Diluted material may biodegrade. Contain and minimize dispersion; collect and contain in suitable disposal containers. Disperse remaining residue to reduce aquatic harm. Report as per regulatory requirements.

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WASTE DISPOSAL : Dispose in accordance with all applicable federal, state, provincial and local regulations. Contact your local, state, provincial or federal environmental agency for specific rules.

STORAGE AND HANDLING : Store in a cool, dry, well-ventilated area. Keep away from incompatibles. Inspect periodically for damage or leaks. Avoid long-term storage in direct sunlight.

Use with adequate ventilation. Avoid breathing vapour or mist. Avoid contact with eyes, skin and clothing. For prolonged use and specialized handling operations (e.g. spraying operation, large engine repair operations) - refer to section 8 for protective clothing and equipment. Wash with soap and water after handling. Keep away from extreme heat and flame. Avoid contact with strong oxidizing agents. Use caution when opening cap. Keep containers tightly closed when not in use. Keep out of the reach of children.

FIRST AID

SKIN : Wash off in flowing water or shower. Wash clothing before re-use. See a doctor if irritation develops or persists.

EYES : Remove contact lenses. Wash with running water for 29 to 30 minutes; lift eyelids often. See a doctor if redness, pain or blinking develops or persists.

INHALATION : Remove to fresh air if effects occur. Give oxygen of artificial respiration as needed. Obtain emergency medical attention. Prompt action is essential.

INGESTION : If a large quantity is swallowed, do not induce vomiting. Do not give anything by mouth to an unconscious person. Seek medical attention.

NOTES TO PHYSICIAN : No specific antidote. Supporting care, treatment based on judgement of the physician on response to reactions of the patient.

INFORMATION ON THE M.S.D.S. PREPARATION

PREPARED BY :
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NOTE :

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