

**MATERIAL SAFETY DATA SHEET**

PRODUCT NAME: ESE SPRAY REDUCER  
PRODUCT CODE: 309-057

HMS CODES: H F R P  
0 0 0

===== SECTION I - MANUFACTURER IDENTIFICATION =====

MANUFACTURER'S NAME: MFG. BUSINESS SYSTEMS  
ADDRESS: 111 SOUTH MAPLE AVENUE, SO. S.F., CA 94080  
EMERGENCY PHONE: 1-800-424-9300 INFORMATION PHONE: 650-873-5990  
DATE REVISED : 01-15-01 NAME OF PREPARER : TIM SIMPSON  
REASON REVISED : ANNUAL UPDATE

===== SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION =====

HAZARDOUS COMPONENTS	CAS NUMBER	OCCUPATIONAL EXPOSURE LIMITS			VAPOR PRESSURE mm Hg @ TEMP	WEIGHT PERCENT
		OSHA/PEL	ACGIH/TLV	OTHER		
2-PROPANOL	67-63-0	400 PPM	400 PPM	500 PPM PS	33.0 68F	10

\*\*\* No toxic chemical(s) subject to the reporting requirements of section 313 of Title III and of 40 CFR 372 are present. \*\*\*  
WARNING! THIS PRODUCT CONTAINS CHEMICAL(S) KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

===== SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS =====

BOILING POINT: 180 Deg F SPECIFIC GRAVITY (H2O=1): 1.0  
VAPOR DENSITY: HEAVIER THAN AIR EVAPORATION RATE: SLOWER THAN ETHER  
COATING V.O.C. : 6.57 LB/GL ( 787 G/L)  
MATERIAL V.O.C.: 0.81 LB/GL ( 98 G/L)  
SOLUBILITY IN WATER: SOLUBLE  
APPEARANCE AND ODOR: VISCOUS COATING WITH SLIGHT AMMONIA ODOR

===== SECTION IV - FIRE AND EXPLOSION HAZARD DATA =====

FLASH POINT: 53 Deg F METHOD USED: TCC  
FLAMMABLE LIMITS IN AIR BY VOLUME- LOWER: 2.0% UPPER: 12.0%

EXTINGUISHING MEDIA: FOAM, CO2, DRY CHEMICAL, WATER FOG

**SPECIAL FIREFIGHTING PROCEDURES**

FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARATUS. FIGHT A VOLATILE LIQUID FIRE. USE WATER TO COOL FIRE EXPOSED CONTAINERS. AVOID SPREADING FIRE WITH COOL WATER. FOG NOZZLES FOR WATER RECOMMENDED.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. VAPORS MAY TRAVEL TO SOURCES OF IGNITION AND CAUSE FLASH FIRE. ISOLATE FROM ALL SOURCES OF HEAT. EMPTY CONTAINERS MAY EXPLODE DUE TO RESIDUES. OBSERVE THIS MSDS. ALL METAL CONTAINERS MUST BE GROUNDED AND/OR BONDED DURING LIQUID TRANSFER.

## ===== SECTION V - REACTIVITY DATA =====

**STABILITY: STABLE  
CONDITIONS TO AVOID**

AVOID PROLONGED BREATHING OF VAPORS, SKIN OR EYE CONTACT. STORE AWAY FROM HEAT, ELECTRICAL EQUIPMENT, SPARKS, OPEN FLAME

**INCOMPATIBILITY (MATERIALS TO AVOID)**

AVOID STRONG OXIDIZING AGENTS, ACIDS AND BASES.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS**

USUAL PRODUCTS OF COMBUSTION; CARBON DIOXIDE, CARBON MONOXIDE, OTHER DIOXIDES, TOXIC SMOKE, FUMES ECT.

**HAZARDOUS POLYMERIZATION: WILL NOT OCCUR**

## ===== SECTION VI - HEALTH HAZARD DATA =====

**INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

DIZZINESS, NAUSEA, HEADACHE, IRRITATION OF THE RESPIRATORY TRACT, UNCONSCIOUSNESS AND EVEN ASPHIXIATION AT HIGH CONCENTRATION.

**SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

SKIN: IRRITATION, DRYING OR CRACKING AND DEFATTING.

EYES: IRRITATION OF THE EYES, WATERING, BLURRED VISION.

**SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

SEVERE IRRITATION OR BURNING SENSATION, CRACKING, DEFATTING OR DERMATITIS MAY OCCUR.

**INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE**

DIZZINESS, NAUSEA, VOMITING AND IRRITATION OF THE GASTROINTESTINAL TRACT.

**HEALTH HAZARDS (ACUTE AND CHRONIC)**

INHALATION: ANESTHETIC. IRRITATION OF RESPIRATORY TRACT WITH HEADACHE, NAUSEA, DIZZINESS, UNCONSCIOUSNESS OR COMA.

NOTE TO PHYSICIAN: INGESTION OF THIS PRODUCT OR SUBSEQUENT VOMITING CAN RESULT IN ASPIRATION OF LIGHT HYDROCARBON LIQUID INTO THE LUNGS WHICH CAN CAUSE FATAL CHEMICAL PNEUMONITIS.

**CARCINOGENICITY: NTP? NO IARC MONOGRAPHS? NO OSHA REGULATED? NO**

THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

**MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE**

PRE-EXISTING HEART, LIVER, KIDNEY, LUNG, SKIN DISORDERS

**EMERGENCY AND FIRST AID PROCEDURES**

INHALATION: REMOVE FROM EXPOSURE, RESTORE BREATHING, ADMINISTER OXYGEN IF NEEDED. SEEK MEDICAL HELP IMMEDIATELY.

EYE CONTACT: FLUSH WITH LARGE AMOUNT OF WATER FOR 15 MINUTES WITH EYELIDS OPEN. SEE A PHYSICIAN IMMEDIATELY.

SKIN CONTACT: WASH WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. SEEK MEDICAL HELP IF SYSTEMS PERSIST.

INGESTION: DO NOT INDUCE VOMITING. DRINK ONE TO TWO GLASSES OF WATER TO DILUTE. SEEK MEDICAL HELP IMMEDIATELY. KEEP PATIENT WARM AND QUIET.

## ===== SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE =====

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED**

VENTILATE AREA. REMOVE ALL SOURCES OF IGNITION. CONTAIN AND REMOVE WITH INERT ABSORBANT AND NON-SPARKING TOOLS. WEAR PROTECTIVE EQUIPMENT DURING CLEANUP. CONTAIN LIQUID TO PREVENT CONTAMINATION OF SOIL AND GROUND WATER.

**WASTE DISPOSAL METHOD**

DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

**PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING**

KEEP CLOSURE TIGHT AND CONTAINER IN UPRIGHT POSITION. STORE AWAY FROM HEAT OR OTHER SOURCES OF IGNITION. CONTAINERS MUST BE BONDED AND/OR GROUNDED DURING LIQUID TRANSFER. HANDLE WHERE VENTILATION IS ADEQUATE AND AWAY FROM SOURCES OF IGNITION.

**OTHER PRECAUTIONS**

AVOID PROLONGED BREATHING OF VAPORS, SKIN OR EYE CONTACT. IN CASE OF CONTACT, WASH THOROUGHLY WITH SOAP AND WATER. THIS PRODUCT CONTAINS LESS THAN ONE PERCENT BY WEIGHT OF AMMONIA (CAS NO. 7664-41-7), AND LESS THAN 0.1% BY WEIGHT OF VINYL ACETATE (CAS # 108-05-4) WHICH IS AN ANIMAL CARCINOGEN. THIS PRODUCT ALSO CONTAINS LESS THAN 0.1% BY WEIGHT OF CRYSTALLINE SILICA (CAS # 14464-46-1) WHICH HAS LIMITED CARCINOGENECITY ON HUMANS AND CADMIUM (CAS # 7440-43-9) WHICH IS A NTP ANTICIPATED CARCINOGEN. MAY CONTAIN LESS THAN 1% COBALT, MANGANESE AND ZINC COMPOUND (CATEGORY CODES: N096, N450, N982).

## ===== SECTION VIII - CONTROL MEASURES =====

**RESPIRATORY PROTECTION**

APPROVED CHEMICAL FILTER RESPIRATOR.

**VENTILATION**

REQUIRED, 200 CFM MINIMUM.

**PROTECTIVE GLOVES**

CHEMICALLY RESISTANT PLASTIC OR RUBBER.

**EYE PROTECTION**

SAFETY EYEWHERE WITH SIDE SHIELDS.

**OTHER PROTECTIVE CLOTHING OR EQUIPMENT**

EYE WASH AND SAFETY SHOWERS IN WORK AREA RECOMMENDED. USE PROTECTIVE HAND CREAMS TO PREVENT DEFATTING OF SKIN UPON EXPOSURE.

**WORK/HYGIENIC PRACTICES**

WASH WITH SOAP AND WATER, REMOVE CONTAMINATED CLOTHING, SHOWER DAILY AND CHANGE CLOTHES BEFORE HANDLING FOOD OR SMOKING.

## ===== SECTION IX - DISCLAIMER =====

**DISCLAIMER**

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