

# MATERIAL SAFETY DATA SHEET

PRODUCT NAME:

## PROPANE ADDITIVE

MANUFACTURE' NAME                    AROL CHEMICAL PRODUCT COMPANY  
ADDRESS:                                    69 FERRY STREET, NEWARK, NJ, 07105  
TELEPHONE NUMBER:                    (973) 344 – 1510  
DATE PREPARED:                         MARCH 12, 2001

HMIS  
HEALTH:                                    0  
FLAMMABILITY:                         2  
REACTIVITY:                             0  
PERSONAL PROTECTION:                C

### SECTION 1 - IDENTITY

PRODUCT NAME:                         PROPANE ADDITIVE  
CHEMICAL NAME:                         Proprietary Mixture  
CHEMICAL FAMILY:                       ALIPHATIC SOLVENT  
CAS NO.:                                  N/A MIXTURE

### SECTION 2 – HAZARDOUS CLASSIFICATION/INGREDIENTS

PRINCIPAL HAZARDOUS COMP. (S)	CAS NO.	%	THRESHOLD LIMIT VALUE
KEROSENE	8008-20-6	79.16	

### SECTION 3–PHYSICAL & CHEMICAL CHARACTERISTICS (Fire & Explosion data)

BOILING POINT:                            300 TO 580°F (149 TO 30°C)  
VAPOR PRESSURE:                         0.4 mm Hg @ 68°F (20°C)  
VAPOR DENSITY (air = 1):                AP 4.5  
SPECIFIC GRAVITY:                        0.79 – 0.85  
PERCENT VOLATILES:                      100%  
EVAPORATION RATE:                       SLOW; VARIES WITH CONDITIONS  
SOLUBILITY IN WATER:                    NEGLIGIBLE

APPEARANCE:                              PALE YELLOW TO WATER – WHITE LIQUID

ODOR:                                        CHARACTERISITIC PETROLEUM DISTILLATE ODOR

### FIRE FIGHTING MEASURES:

FLASH POINT:                               130°F  
AUTO-IGNITION TEMP.:                    410°F (210°C)

COMBUSTIBLE LIQUID UNDER CONDITIONS OF DOT 49 CFR  
173.120 (B) (2)

LOWER EXPLOSIVE LIMIT (%):            0.7  
UPPER EXPLOSIVE LIMIT (%):            5.0  
SPECIAL FIREFIGHT PROCEDURE:

A NIOSH approved respirator should be worn when fighting fires, particularly in confined areas.

### FIRE AND EXPLOSION HAZARDOUS:

VAPORS MAY BE IGNITED RAPIDLY WHEN EXPOSED TO HEAT, SPARK, OPEN FLAME OR OTHER SOURCE OR IGNITION. WHEN MIXED WITH AIR AND EXPOSED TO AN IGNITION SOURCE, FLAMMABLE VAPORS CAN BURN IN THE OPEN OR EXPLODE IN CONFINED SPACES. BEING HEAVIER THAN AIR, VAPORS MAY TRAVEL LONG DISTANCES TO AN IGNITION SOURCE AND FLASH BACK. RUN OFF TO SEWER MAY CAUSE FIRE OR EXPLOSION HAZARD.

## EXTINGUISHING MEDIA

SMALL FIRES: ANY EXTINGUISHER SUITABLE FOR CLASS B FIRES, DRY CHEMICAL, CO2, WATER SPRAY, FIRE FIGHTING FOAM OR HALON

LARGE FIRES: WATER SPRAY, FOG OR FIRE FIGHTING FOAM. WATER MAY BE INEFFECTIVE FOR FIGHTING THE FIRE, BUT MAY BE USED TO COOL FIRE EXPOSED CONTAINERS

### FIRE FIGHTING INSTRUCTIONS:

SMALL FIRES IN THE INCIPIENT (BEGINNING) STAGE MAY TYPICALLY BE EXTINGUISHED USING HANDHELD PORTABLE FIRE EXTINGUISHERS AND OTHER FIRE FIGHTING EQUIPMENT.

FIREFIGHTING ACTIVITIES THAT MAY RESULT IN POTENTIAL EXPOSURE TO HIGH HEAT, SMOKE OR TOXIC BY PRODUCTS OF COMBUSTION SHOULD REQUIRE NIOSH/MSHA – APPROVED PRESSURE DEMAND SELF CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE AND FULL PROTECTIVE CLOTHING.

ISOLATE AREA AROUND CONTAINER INVOLVED IN FIRE. COOL TANKS, SHELLS, AND CONTAINERS EXPOSED TO FIRE AND EXCESSIVE HEAT WITH WATER. FOR MASSIVE FIRES THE USE OF UNMANNED HOSE HOLDERS OR MONITOR NOZZLES MAY BE ADVANTAGEOUS TO FURTHER MINIMIZE PERSONNEL EXPOSURE. MAJOR FIRES MAY REQUIRE WITHDRAWAL, ALLOWING THE TANK TO BURN. LARGE STORAGE TANK FIRES TYPICALLY REQUIRE SPECIALLY TRAINED PERSONNEL AND EQUIPMENT TO EXTINGUISH THE FIRE, OFTEN INCLUDING THE NEED FOR PROPERLY APPLIED FIRE FIGHTING FOAM

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## SECTION 4 – PHYSICAL HAZARDS

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STABILITY: CONDITIONS TO AVOID:	STABLE MATERIAL IS STABLE UNDER NORMAL CONDITIONS AVOID HIGH TEMPERATURES, OPEN FLAMES, SPARKS, WELDING, SMOKING AND OTHER IGNITION SOURCES
INCOMPATIBILITY (MTL'S TO AVOID):	KEEP AWAY FROM STRONG OXIDIZERS SUCH AS NITRIC ACID AND SULFURIC ACIDS, IGNITION SOURCES, AND HEAT
HAZARDOUS DECOMP. PROD.:	CARBON MONOXIDE, CARBON DIOXIDE AND NON-COMBUSTED HYDROCARBONS (SMOKE)
HAZARDOUS POLYMERIZATION:	Will not occur

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## SECTION 5 – HEALTH HAZARDS & FIRST AID

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OSHA/NFPA COMBUSTIBLE LIQUID – SLIGHT TO MODERATE IRRITANT – EFFECTS CENTRAL NERVOUS SYSTEM – HARMFUL OR FATAL IF SWALLOWED

MODERATE FIRE HAZARD. AVOID BREATHING VAPORS OR MISTS. MAY CAUSE DIZZINESS AND DROWSINESS. MAY CAUSE EYE IRRITATION AND SKIN IRRITATION (RASH). LONG – TERM, REPEATED EXPOSURE MAY CAUSE SKIN CANCER. IF INGESTED, **DO NOT INDUCE VOMITTING**, AS THIS MAY CAUSE CHEMICAL PNEUMONIA (FLUID IN THE LUNGS).

### EMERGENCY AND FIRST AID PROCEDURES:

1. INHALATION  
Excessive exposure may cause irritations to the nose, throat, lungs, and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death  
**ATTENTION:**  
REMOVE PERSON TO FRESH AIR, IF PERSON IS NOT BREATHING, ENSURE AN OPEN AIRWAY AND PROVIDE ARTIFICIAL RESPIRATION. IF NECESSARY, PROVIDE ADDITIONAL OXYGEN ONCE BREATHING IS RESTORED IF TRAINED TO DO SO. SEEK MEDICAL ATTENTION IMMEDIATELY
2. EYES:  
Contact with liquid or vapor may cause mild irritation  
  
IN CASE OF CONTACT WITH EYES, IMMEDIATELY FLUSH WITH CLEAN, LOW-PRESSURE WATER FOR AT LEAST 15 MIN. HOLD EYELIDS OPEN TO ENSURE ADEQUATE FLUSHING. SEEK MEDICAL ATTENTION
3. SKIN:  
May cause skin irritation with prolonged or repeated contact. Practically non-toxic if absorbed following acute (single) exposure. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.  
  
REMOVE CONTAMINATED CLOTHING. WASH CONTAMINATED AREAS THOROUGHLY WITH SOAP AND WATER OR WATERLESS HAND CLEANER. OBTAIN MEDICAL ATTENTION IF IRRITATION OR REDNESS DEVELOPS.

4. INGESTION:

The major health threat of ingestion occurs from the danger of aspiration (breathing) liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death. Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

**DO NOT INDUCE VOMITTING. DO NOT GIVE LIQUIDS. OBTAIN IMMEDIATE MEDICAL ATTENTION. IF SPONTANEOUS VOMITTING OCCURS, LEAN VICTIM FORWARD TO REDUCE THE RISK OF ASPIRATION. MONITOR FOR BREATHING DIFFICULTIES. SMALL AMOUNTS OF MATERIAL THAT ENTER THE MOUTH SHOULD BE RINSED OUT UNTIL THE TASTE IS DISSIPATED.**

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## **SECTION 6 – EXPOSURE CONTROLS AND SPECIAL PROTECTION INFORMATION**

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### **ENGINEERING CONTROLS:**

USE ADEQUATE VENTILATION TO KEEP VAPOR CONCENTRATIONS OF THIS PRODUCT BELOW OCCUPATIONAL EXPOSURE AND FLAMMABILITY LIMITS, PARTICULARLY IN CONFINED SPACES.

### **EYE/FACE PROTECTION:**

SAFETY GLASSES OR GOGGLES ARE RECOMMENDED WHERE THERE IS A POSSIBILITY OF SPLASHING OR SPRAYING.

### **SKIN PROTECTION:**

GLOVES CONSTRUCTED OF NITRILE, NEOPRENE, OR PVC ARE RECOMMENDED. CHEMICAL PROTECTIVE CLOTHING SUCH AS OF E.I. DUPONT TYCHEM, SARANEX, OR EQUIVALENT RECOMMENDED BASED ON DEGREE OF EXPOSURE. **NOTE:** THE RESISTANCE OF SPECIFIC MATERIAL MAY VARY FROM PRODUCT TO PRODUCT AS WELL AS WITH DEGREE OF EXPOSURE. CONSULT MANUFACTURER SPECIFICATIONS FOR FURTHER INFORMATION.

### **RESPIRATORY PROTECTION:**

A NIOSH/MSHA – APPROVED AIR PURIFYING RESPIRATOR WITH ORGANIC CARTRIDGES OR CANISTER MAY BE PERMISSIBLE UNDER CERTAIN CIRCUMSTANCES WHERE AIRBORNE CONCENTRATIONS ARE OR MAY BE EXPECTED TO EXCEED EXPOSURE LIMITS OR FOR ODOR OR IRRITATION. PROTECTION PROVIDED BY AIR PURIFYING RESPIRATORS IS LIMITED. REFER TO OSHA 29 CFR 1910, 134, ANSI Z88.2-1992, NIOSH RESPIRATOR DECISION LOGIC, AND THE MANUFACTURER FOR ADDITIONAL GUIDANCE ON RESPIRATORY PROTECTION SELECTION.

USE A POSITIVE PRESSURE, AIR SUPPLIED RESPIRATOR IF THERE IS A POTENTIAL FOR UNCONTROLLED RELEASE, EXPOSURE LEVELS ARE NOT KNOWN, IN OXYGEN DEFICIENT ATMOSPHERES, OR ANY OTHER CIRCUMSTANCES WHERE AN AIR PURIFYING RESPIRATOR MAY NOT PROVIDE ADEQUATE PROTECTION.

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## **SECTION 7 – SPECIAL PRECAUTIONS AND SPILL/LEAK PROCEDURES**

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EVACUATE NONESSENTIAL PERSONNEL AND REMOVE OR SECURE ALL IGNITION SOURCES. CONSIDER WIND DIRECTION; STAY UPWIND AND UPHILL, IF POSSIBLE. EVALUATE THE DIRECTION OR PRODUCT TRAVEL, DIKING, SEWERS, ETC. TO CONFIRM SPILL AREAS. SPILLS MAY INFILTRATE SUBSURFACE SOIL AND GROUNDWATER; PROFESSIONAL ASSISTANCE MAY BE NECESSARY TO DETERMINE THE EXTENT OF THE SURFACE IMPACT.

CAREFULLY CONTAIN AND STOP THE SOURCE OF THE SPILL, IF SAFE TO DO SO, PROTECT BODIES OF WATER BY DIKING, ABSORBENTS, OR ABSORBENT BOOM, IF POSSIBLE. DO NOT FLUSH DOWN SEWER OR DRAINAGE SYSTEMS, UNLESS SYSTEM IS DESIGNED AND PERMITTED TO HANDLE SUCH MATERIAL. THE USE OF FIRE FIGHTING FOAM MAY BE USEFUL IN CERTAIN SITUATIONS TO REDUCE VAPORS. THE PROPER USE OF WATER SPRAY MAY EFFECTIVELY DISPERSE PRODUCTS VAPORS OR THE LIQUID ITSELF, PREVENTING CONTACT WITH IGNITION SOURCES OR AREA/EQUIPMENT THAT REQUIRE PROTECTION.

TAKE UP WITH SAND OR OTHER OIL ABSORBING MATERIALS. CAREFULLY SHOVEL, SCOOP OR SWEEP UP INTO A WASTE CONTAINER FOR RECLAMATION OR DISPOSAL – **CAUTION:** FLAMMABLE VAPORS MAY ACCUMULATE IN CLOSED CONTAINERS. RESPONSE AND CLEAN UP CREWS MUST BE PROPERLY TRAINED AND MUST UTILIZE PROPER PROTECTIVE EQUIPMENT.

### **HANDLING AND STORAGE:**

HANDLE AS A COMBUSTIBLE LIQUID. KEEP AWAY FROM HEAT, SPARKS AND OPEN FLAMES. ELECTRICAL EQUIPMENT SHOULD BE APPROVED FOR CLASSIFIED AREA. BOND AND GROUND CONTAINERS DURING PRODUCT TRANSFER TO REDUCE THE POSSIBILITY OF STATIC INITIATED FIRE OR EXPLOSION.

SPECIAL SLOW LOAD PROCEDURES FOR “SWITCH LOADING” MUST BE FOLLOWED TO AVOID THE STATIC IGNITION HAZARD THAT CAN EXIST WHEN HIGHER FLASH POINT MATERIAL (SUCH AS FUEL OIL) IS LOADED INTO TANKS PREVIOUSLY CONTAINING LOW FLASH POINT PRODUCTS (SUCH AS THIS PRODUCT)

**STORAGE PRECAUTION:**

KEEP AWAY FROM FLAME, SPARKS, EXCESSIVE TEMPERATURES AND OPEN FLAME. USE APPROVED VENTED CONTAINERS. KEEP CONTAINERS CLOSED AND CLEARLY LABELED. EMPTY PRODUCT CONTAINERS OR VESSELS MAY CONTAIN EXPLOSIVE VAPORS. DO NOT PRESSURIZE CUT, HEAT, WELD OR EXPOSE SUCH CONTAINERS TO SOURCES OF IGNITION.

STORE IN WELL VENTILATED AREA. THIS STORAGE AREA SHOULD COMPLY WITH NFPA 30 FLAMMABLE AND COMBUSTIBLE LIQUID CODE. AVOID STORAGE NEAR INCOMPATIBLE MATERIALS. THE CLEANING OF TANKS PREVIOUSLY CONTAINING THIS PRODUCT SHOULD FOLLOW API RECOMMENDED PRACTICE

N/E – NOT ESTABLISHED

N/A – NOT APPLICABLE

TBD – TO BE DETERMINED

This data is offered in good faith as typical values and not as product specifications. No warranty is either expressed or implied. The safety information and recommendations are believed to be generally applicable; however, the user should review these recommendations in the specific context of their intended use and determine whether they are appropriate.