MATERIAL SAFETY DATA SHEET
Complies with guidelines set out by the
National Occupational Health & Safety Commission
(NOHSC) of Australia.

Identity (As used on Label and List)
COPPER ANTI-SEIZE COMPOUND WITH TEFLON

Section I

Manufacture's Name UNASCO PTY LTD	Emergency Telephone Number NONE AVAILABLE
Address (Number, Street, State and ZIP Code) 1 AMAX AVE, GIRRAWEEN, NSW 2145, AUSTRALIA	Telephone Number for Information (TEL): +61 (0)2 9636 1200 (FAX): +61 (0)2 9688 4831
Date Prepared APRIL 2007	Prepared by DAVID BENTLEY – PRODUCT MANAGER

Section II – Hazardous Ingredients/Identity Information

Ingredients	OSHA PEL	CAS Number	ACGIH TLV
Copper	N/A	7440-50-8	N/A
Polytetrafluoroethylene	N/A	9002-84-0	N/A
Slovent refined mineral	N/A	64742-65-0	N/A
oil	N/A	1340-38-7	N/A
Bentone thickener	N/A	N/A	N/A
Antioxidant			

Section III – Physical/Chemical Characteristics

Boiling Point N/A	Specific Gravity (H_20 = 1) 1.5
Vapour Pressure (mm Hg) N/A	Melting Point N/A
Vapour Density (air = 1) N/A	Evaporation Rate (Butyl Acetate = 1) N/A
Solubility in Water INSOLUBLE	Appearance and Odour A COPPER COLOURED PASTE WITH A GREASE-LIKE ODOUR

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
225ºC (OPEN CUP)	N/A		
Extinguishing Media ANY STANDARD MEDIUM			
Special Fire Fighting Procedures HAZARDOUS DECOMPOSITION PRODUCTS PRODUCED ON BURNING INCLUDE OXIDES OF CARBON, OXIDES OF NITROGEN, WATER VAPOUR, SMOKE AND FUMES AND HYDROGEN FLUORIDE. FIRE FIGHTING PERSONNEL TO WEAR SELF CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. USE FOAM, CARBON DIOXIDE, DRY CHEMICAL AND WATER SPRAY TO EXTINGUISH.			
Unusual Fire and Explosion Hazards TOXIC FUMES GIVEN OFF ABOVE 260ºC.			

Section V – Reactivity Data

Stability:	Stable □ Unstable □	Conditions to Avoid TEMPERATURES ABOVE 260ºC WITHOUT ADEQUATE VENTILATION.
Incompatibility (Materials to Avoid) INCOMPATIBLE WITH REDUCING AGENTS, PERCHLORATES, STRONG MINERAL ACIDS AND PHOSPEROUS MATERIALS. DO NOT USE ON OXYGEN EQUIPMENT.		
Hazardous Polymerization:	May Occur □ Will Not Occur □	Conditions to Avoid TEMPERATURE ABOVE 260ºC.

Section VI – Health Hazard Data

Health Hazards (Acute)

Swallowed?
NO ADVERSE EFFECT KNOWN

Eye?
SEE ABOVE

Skin?
SEE ABOVE

Inhalation?
THE MATERIAL IS NOT NORMALLY AN INHALATION HAZARD AT TEMPERATURES BELOW 260ºC AS IT REMAINS AN INERT SOLID. HOWEVER, EXPOSURE TO THERMAL DEGRADATION PRODUCTS AT TEMPERATURES ABOVE 260ºC OR FUMES FROM TOBACCO CONTAMINATED WITH PARTICLES OF THE PRODUCT MAY RESULT IN "POLYMER FUME FEVER" OR INFLUENZA-LIKE SYMPTOMS (CHILLS, HEADACHES, DIFFICULTY IN BREATHING AND FEVER). SYMPTOMS MAY APPEAR SEVERAL HOURS AFTER EXPOSURE BUT WILL DISAPPEAR WITHIN 24-48 HOURS. THERE ARE EXPOSURE STANDARDS FOR DECOMPOSITION PRODUCTS.

	TWA		STEL	
HF*	ppm	mg/m³	ppm	mg/m³
	3	2.6	PEAK LIMITATION	

*MEASURED AS AN INSPIRABLE FRACTION

CARBONYL FLUORIDE IS THE MAIN DECOMPOSITION PRODUCT FORMED WHEN PTFE IS SUBJECTED TO EXTENDED EXPOSURE AT NORMAL SINTERING TEMPERATURES (400ºC). CARBONYL FLUORIDE IS IMMEDIATELY CONVERTED TO HIGHLY CORROSIVE HYDROGEN FLUORIDE IN THE PRESENCE OF MOIST AIR.

COPPER: TLV/TWA: 0.2mg/m³ - FUME (NOHSC – 1990)

PEAK LIMITATION – A CEILING CONCENTRATION WHICH SHOULD NOT BE EXCEEDED OVER A MEASUREMENT PERIOD WHICH SHOULD BE AS SHORT AS POSSIBLE BUT NOT EXCEEDING 15 MINUTES.

TLV – THRESHHOLD LIMIT VALUE.

TWA – (THE TIME WEIGHTED AVERAGE) – AIRBORNE CONCENTRATIONS OVER AN EIGHT HOUR WORKING DAY FOR A FIVE DAY WORKING WEEK OVER AN ENTIRE WORKING LIFE

STEL – (SHORT TERM EXPOSURE LIMIT) – THE AVERAGE AIRBORNE CONCENTRATION OVER A 15 MINUTE PERIOD WHICH SHOULD NOT BE EXCEEDED AT ANY TIME DURING A NORMAL 8 HOUR WORKING DAY. ACCORDING TO CURRENT KNOWLEDGE THESE CONCENTRATIONS SHOULD NOT IMPAIR THE HEALTH OF, NOR CAUSE UNDUE DISCOMFORT TO, HEALTHY WORKERS.

Health Hazards (Chronic)
NO ADVERSE EFFECT KNOWN

Toxicity
THERE IS NO INFORMATION ON THE PRODUCT BUT THERE IS DATA ON ITS INGREDIENTS.
Polytetrafluoroethylene (PTFE):
NO LD50 DATA IS AVAILABLE ON PTFE. NO TOXICITY WAS OBSERVED IN MAKE/FEMALE RATS FED PTFE (UP TO 25%) FOR 90 DAYS. LOCAL SARCOMAS WERE INDUCED IN MICE AND RATS IMPLANTED SUBCUTANEOUSLY OR INTRAPERITONEAL-LY WITH PTFE. HOWEVER, THIS IS NOT CONSIDERED RELEVANT TO NORMAL INDUSTRIAL USAGE.

Copper:
Oral – Human: TDLo: 120mg/kg (GASTROINTESTINAL EFFECTS).

Carcinogeneity PTFE: PTFE HAS BEEN CLASSIFIED BY THE INTERNATIONAL AGENCY FOR RESEARCH INTO CANCER AS A GROUP III AGENT. AS SUCH IT IS NOT CLASSIFIABLE AS TO ITS CARCINOGENEITY TO HUMANS.
Emergency and First Air Procedures Swallowed: RINSE MOUTH WITH WATER. GIVE PLENTY OF WATER TO DRINK. SEEK MEDICAL ADVICE. Eye: IRRIGATE THE EYES WITH PLENTY OF WATER FOR 15 MINUTES. IN ALL CASES OF EYE CONTAMINATION IT IS A SENSIBLE PRECAUTION TO SEEK MEDICAL ADVICE. Skin: IF IRRITATION OCCURS WASH THE CONTAIMINATED AREA WITH PLENTY OF SOAP AND WATER. REMOVE ANY CONTAMINATED CLOTHING AND WASH PRIOR TO REUSE. IF IRRITATION CONTINUES, SEEK MEDICAL ADVICE. Inhalation: REMOVE VICTIM FROM EXPOSURE – AVOID BECOMING A CASUALITY. ALLOW PATIENT TO ASSUME MOST COMFORTABLE POSITION AND KEEP WARM. KEEP AT REST UNTIL FULLY RECOVERED. IF BREATHING LABORED AND PATIENT CYANOTIC (BLUE) INSURE THAT AIRWAYS ARE CLEAR AND HAVE A QUALIFIED PERSON GIVE OXYGEN THROUGH A FACE MASK. IF BREATHING HAS STOPPED APPLY ARTIFICIAL RESPIRATION AT ONCE. IN EVENT OF CARDIAC ARRST APPLY EXTERNAL CARDIAC MASSAGE. SEEK MEDICAL ADVICE.

Section VII – Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilt SWEEP UP
Waste Disposal Method BURNING IS NOT RECOMMENDED. COMPLY WITH LOCAL REGUALTIONS.
Precautions to be Taken in Handling and Storing KEEP AWAY FROM FLAMES. STORE BELOW 260ºC.

Section VIII – Control Measures

Respiratory Protection NO SPECIAL CONTROLS ARE NECESSARY IF USED WITHIN RECOMMENDED OPERATION TEMPERATURES (i.e. -260ºC TO +260ºC).	
Ventilation SEE ABOVE.	
Protective Gloves SEE ABOVE	Eye Protection SEE ABOVE.
Other Protective Clothing or Equipment SEE ABOVE.	Work/Hygienic Practices SEE ABOVE.