



MATERIAL SAFETY DATA SHEET

SECTION I PRODUCT INFORMATION		
Product Name:	LIGHT OIL	
Material Type:	BY-PRODUCT	
Product Use:	CHEMICAL INTERMEDIATE	
Manufacture's Name & Address:	ESSAR Steel Algoma Inc. 105 West Street Sault Ste. Marie Ontario, Canada P6A 7B4	
Emergency Phone Numbers:	(705) 945-4058 (8:00 am – 4:00 pm) (705) 945-2271 (after hours)	Revision Date: September 1, 2007
WHMIS Class:	B2, D1, D2	
TDG Information:	Coal Tar Distillate, (PIN #1136)	

SECTION II INGREDIENT LISTING					
			*TWAEV Ontario Regulation (833)	Toxicity	
Ingredient:	CAS. No.	%	(*PPM/mg/m ³)	LD50	LC50
Benzene	71-43-2	71	0.5 PPM*	930 mg/kg	13,700 PPM
Toluene	108-88-3	13	100 PPM	<870 mg/kg	8800 PPM
Naphthalene	91-20-3	4.5	10 PPM	533 mg/kg	N/A
Ethyl Benzene	100-41-4	2.8	100 PPM	3500 mg/kg	N/A
Indene	95-13-6	2.8	10 PPM	N/A	N/A
Xylene	1330-20-7	2.8	100 PPM	5400 mg/kg	6350 PPM
Styrene	100-42-5	1.9	50 PPM	5000 mg/kg	5640 PPM
Carbon Disulfide	75-15-0	0.4	10 PPM	3020 mg/kg	2300 PPM
Hydrogen Cyanide	74-90-8	<0.1	C4.7 PPM	3.7 mg/kg	484 PPM
			* Benzene Designated Substance Regulation (839)		

- * TWAEV = Time Weighted Average Exposure Value
- *PPM = Parts Per Million
- *mg/m³ = Milligrams Per Cubic Metre



ESSAR
STEEL

SECTION III PHYSICAL DATA			
Physical State:	Liquid	PH:	N/A
Boiling Point: (⁰C)	80	Specific Gravity(H₂O =1):	0.87
Melting Point: (⁰C)	5.5	% Volatile by Volume:	>90
Vapour Pressure: (mmHg)	100 @ 26 ⁰ C	Evaporation Rate:	1(Carbon Tet = 1)
Vapour Density: (Air =1)	2.77 g/l	Appearance & Odour:	Yellow Liquid/Sweet Odour
Solubility in H₂O:	Slight	Coefficient Water/Oil Distribution	N/A

SECTION IV FIRE AND EXPLOSION HAZARD DATA						
Flammable:	YES:	X	NO:		Flash Point: (⁰C) Closed Cup:	-11
Flammable Limits:	LEL:	1.4	UEL:	8.0		
Extinguishing Media:	Carbon Dioxide, Dry Chemical or Foam					
Susceptibility to Mechanical Impact: or Static Discharge:	Flowing liquid can produce static discharge ground all transfer containers					
Fire Fighting Procedures:	Fire fighters must wear self-contained breathing apparatus. Do not cut or weld on steel containers.					

SECTION V REACTIVITY DATA	
Stability:	Stable
Incompatible Materials:	None
Decomposition Products:	Thermal decomposition will produce oxides of carbon and nitrogen.

SECTION VI TOXICOLOGICAL INFORMATION
Acute Effects: Toxic by inhalation, skin absorption or ingestion. Material is irritation to the skin, eyes, mucous membranes or upper respiratory tract. Over exposure may cause narcotic effects, drowsiness, fatigue, or confusion. Severe over exposure may cause tremors, convulsions and death or to respiratory paralysis.
Chronic Effects: Prolonged skin or eye exposure can cause drying of the skin and eyes. Chronic exposure can impact the blood forming systems. Benzene has been designated as carcinogenic by I.A.R.C. and the A.C.I.G.H. and is linked to Leukemia and Aplastic anemia with target organs being bone marrow and peripheral blood-forming tissues. Benzene has also been linked to carcinogenic effects in the female reproductive system. See lethal Dose and Concentration information listed in section II.



SECTION VII FIRST AID MEASURES	
Inhalation:	Remove to fresh air and give artificial respiration if required. Get medical aid.
Skin Contact:	Wash thoroughly with soap and water. Launder contaminated clothing.
Eye Contact:	Flush with clean water for 15 minutes. Seek medical aid.
Ingestion:	Do not induce vomiting. Seek medical aid immediately.

SECTION VIII PREVENTIVE MEASURES	
Respiratory Protection:	Use a N.I.O.S.H. approved respirator adequate for potential exposure.
Protective Gloves/Clothing:	Use rubber gloves and clothing as required, to prevent skin contact.
Eye Protection:	Use face shield or chemical splash goggles for splash hazards.
Ventilation:	Use adequate ventilation to prevent overexposure to vapour.
Spill Cleanup:	Contain spill. Eliminate all sources of ignition. Cover spilled material with sand or other inert material. Use proper protective equipment and non-sparking tools during cleanup.
Waste Disposal:	Dispose of waste per applicable environmental legislation.
Handling/Storage:	Avoid contact with oxidizing materials. Store as a flammable liquid. Ground and bond containers for liquid transfer.

SECTION IX SPECIAL PRECAUTIONS
Avoid inhalation or skin contact with liquid. Ground and bond all containers. Avoid sources of ignition. Product contains Benzene which has been designated as carcinogenic by I.A.R.C and the A.C.G.I.H.

SECTION X PREPARATION INFORMATION	
Prepared by: ESSAR Steel Algoma Inc. Occupational Health and Safety Department	MSDS Inquiries Phone: (705) 945-4058

U = Unknown
N/A = Not applicable