

MATERIAL SAFETY DATA SHEET

LANDA
TONER

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I

MANUFACTURER'S NAME SYNFAX MANUFACTURING INC.		EMERGENCY TELEPHONE NO. 201-465-0010
ADDRESS (Number, Street, City, State, and ZIP Code) 441 AVENUE P., NEWARK, N.J. 07105		
CHEMICAL NAME AND SYNONYMS TONER CONCENTRATE	TRADE NAME AND SYNONYMS SAVIN LANDA II TONER	
CHEMICAL FAMILY PETROLEUM HYDROCARBON	FORMULA COMPLEX MIXTURE OF PETROLEUM HYDROCARBONS	

SECTION II - HAZARDOUS INGREDIENTS

PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS	1.7		BASE METAL		
CATALYST			ALLOYS		
VEHICLE	6.8		METALLIC COATINGS		
SOLVENTS	91.5	300	FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES					
SOLVENTS					1000000000
*A TLV has not been established for this product. The value shown has been recommended by Syntex Corp. Medical Research based on consideration of available toxicological data. Additional data are being obtained to help define a recommended occupational exposure limit more conclusively.					

SECTION III - PHYSICAL DATA

BOILING POINT (°F) (At 1 atm)	175-180°F	SPECIFIC GRAVITY (H ₂ O=1) @ 60/15 °C	0.76
VAPOR PRESSURE (mm Hg) @ 25°C	< 10	PERCENT VOLATILE BY VOLUME (%)	50.55
VAPOR DENSITY (AIR=1)	5.3	EVAPORATION RATE (—=1)	0.1
SOLUBILITY IN WATER	Insoluble		
APPEARANCE AND ODOR	Black, low viscosity liquid		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Closed Cup)	Minimum 110°F.	FLAMMABLE LIMITS	LEL	UEL
EXTINGUISHING MEDIA	Foam, d-v chemical, CO ₂ , water spray or fog			
SPECIAL FIRE FIGHTING PROCEDURES	Foam-type extinguisher - superior to CO ₂ extinguishers			
	Avoid Water - it tends to spread hydrocarbon solvent fires.			
UNUSUAL FIRE AND EXPLOSION HAZARDS	Combustible liquid			

Section III-Physical/Chemical Characteristics

Boiling Point	N.A	Specific Gravity(H ₂ O=1)	0.97
Vapor Pressure(mmHg.)	N.A	Melting Point	No data
Vapor Density(AIR=1)	N.A	Evaporation Rate (Butyl Acetate=1)	N.A
Solubility in water Negligible: Less than 0.1%			
Appearance and Odor Clear liquid, no odor.			

Section IV-Fire and Explosion Hazard Data

Flash Point(Method used) More than 315°C (open cup)	Flammable limits(%) N.A	LEL	UEL
Extinguishing Media Foam, dry chemical, or carbon dioxide may be suitable.			
Special Fire Fighting Procedures No special fire fighting procedure is necessary.			
Unusual Fire and Explosion Hazards Will not occur.			

Section V-Reactivity Data

Stability	Unstable		Condition to avoid
	Stable	X	
Incompatibility(Materials to avoid) None			
Hazardous Decomposition or Byproduct No data			

Section VI-Health Hazard Data

Route(s) of Entry:	Inhalation ?	Skin ?	Ingestion ?
		X	
Health Hazards(Acute and Chronic) Acute oral toxicity: greater than 35g/kg bodyweight. Skin irritation(rabbit): Very low irritation. Carcinogenicity: NTP ?, IARC Monograph ?, OSHA Regulated ? See Section II			

Page(2) Silicone oil

Waste Disposal Method Incinerate cloth or paper that wiped spilled liquid.
Precautions to Be Taken in Handling and Storing Store in cool and dry place. Keep out of reach of children.
Other Precautions Keep container closed. When spilled, the floor gets slippery. Wipe up the floor completely.

Page(3) Silicone oil

Section III - Physical/Chemical Characteristics

Boiling Point	N.A	Specific Gravity (H ₂ O=1) Bulk density	1.97
Vapor Pressure (mmHg.)	N.A	Melting Point	No data
Vapor Density (AIR=1)	N.A	Evaporation Rate (Butyl Acetate=1)	N.A
Solubility in water Negligible: Less than 0.1%			
Appearance and Odor Black powder, no odor.			

Section IV - Fire and Explosion Hazard Data

Flesh Point (Method used)	N.A	Flammable limits (%)	LEL	UEL
		N.A		
Extinguishing Media Foam, water spray (fog), dry chemical, or carbon dioxide may be suitable.				
Special Fire Fighting Procedures No special fire fighting procedure is necessary.				
Unusual Fire and Explosion Hazards Will not occur.				

Section V - Reactivity Data

Stability	Unstable		Condition to avoid
	Stable	X	
Incompatibility (Materials to avoid) None			
Hazardous Decomposition or Byproduct Carbon monoxide and other decomposition product in case of incomplete combustion.			

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation ?	Skin ?	Ingestion ?
	X		
Health Hazards (Acute and Chronic) Acute oral toxicity: greater than 10g/kg bodyweight. Skin irritation (rabbit): Mildly irritating. Ames test result: Negative. Carcinogenicity: NTP ?, IARC Monograph ?, OSHA Regulated ? See Section II			

Section III-Physical/Chemical Characteristics

Boiling Point	N.A	Specific Gravity(H ₂ O=1) Bulk density	0.34
Vapor Pressure(mmHg.)	N.A	Melting Point	No data
Vapor Density(AIR=1)	N.A	Evaporation Rate (Butyl Acetate=1)	N.A
Solubility in water Negligible: Less than 0.1%			
Appearance and Odor Black powder, no odor.			

Section IV-Fire and Explosion Hazard Data

Flash Point(Method used)	N.A	Flammable limits(%)	LEL	UEL
		N.A		
Extinguishing Media Foam, water spray(fog), dry chemical, or carbon dioxide may be suitable.				
Special Fire Fighting Procedures No special fire fighting procedure is necessary .				
Unusual Fire and Explosion Hazards Will not occur.				

Section V-Reactivity Data

Stability	Unstable		Condition to avoid
	Stable	X	
Incompatibility(Materials to avoid): None			
Hazardous Decomposition or Byproduct Carbon monoxide and other decomposition product in case of incomplete combustion.			

Section VI-Health Hazard Data

Route(s) of Entry:	Inhalation ?	Skin ?	Ingestion ?
	X		
Health Hazards(Acute and Chronic) Acute oral toxicity: greater than 10g/kg bodyweight. Skin irritation(rabbit): Mildly irritating. Ames test result: Negative.			
Carcinogenicity: NTP ?, IARC Monograph ?, OSHA Regulated ? See Section II			

Section VIII-Control Measures

Respiratory Protection(Specify Type)		
None needed under normal use condition.		
Ventillation	Local Exhaust	Special
	None needed under normal use condition.	None needed.
	Mechanical(General)	Other
	Adequate ventilation.	None needed.
Protective Gloves		Eye Protection
None needed under normal use condition.		None needed.
Other Protective Clothing or Equipment		
None needed.		
Work/Hygiene Practices		
Minimize breathing dust. Cleanse skin thoroughly after contact, before breaks and meals, and at the end of period.		

Page(4) 5015/5020/7025/7020/7035/7045/7055 Toner

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The information and recommendations are offered for the user's responsibility to satisfy itself that they are suitable and complete for its particular use.

Sakae Shimizu

S. Shimizu

General Manager

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SECTION V - HEALTH HAZARD DATA

THRESHOLD LIMIT VALUE

See Section II. Recommended exposure limit is 300 ppm for 8 hour workday.

EFFECTS OF OVEREXPOSURE

Inhalation of high vapor concentrations may have results ranging from dizziness and headaches to unconsciousness. Prolonged or repeated liquid contact with the skin leading to irritation and dermatitis.

EMERGENCY AND FIRST AID PROCEDURES

Inhalation: remove from solvent-laden area to fresh air area.

Accidental ingestion: do not induce vomiting; call physician immediately.

Eyes: Flush thoroughly with clean warm water for at least 15 minutes. If irritation persists, call physician.

SECTION VI - REACTIVITY DATA

STABILITY	UNSTABLE		CONDITIONS TO AVOID
		X	

INCOMPATIBILITY (Materials to avoid)
Strong oxidants like: liquid chlorine, concentrated oxygen, sodium- or calcium hypochlorite

HAZARDOUS DECOMPOSITION PRODUCTS
Fumes, smoke and carbon monoxide, in the case of incomplete combustion.

HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
		X	

SECTION VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: REMOVE IGNITION SOURCES. If amount is small (under 1 pint) allow to evaporate - increasing air circulation if possible - and avoid any sparks or open flames. If amount is large, try to contain and sop up into a container which can be closed.

WASTE DISPOSAL METHOD Large containers of waste must be handled by persons or firms with facilities for disposal; for example, controlled burning.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION (Specify type)		Not needed	
VENTILATION	LOCAL EXHAUST	SPECIAL	OTHER
			Normal Air Conditioning
PROTECTIVE GLOVES		Not needed	
OTHER PROTECTIVE EQUIPMENT		Not needed	

SECTION IX - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Use containers closed when not in use. Do not handle or store near heat, sparks, flame or strong oxidants. Adequate ventilation required.

OTHER PRECAUTIONS Avoid use in a small closed room or confined area with poor air circulation.