

MATERIAL SAFETY DATA SHEET

4					
1.	Substance, Preparation, and Company Description				
	Material Uses	Lubricant, Grease, Industrial applications			
		Engineered Custom Lubricants			
	Manufacturer	(ECL)			
	a.raraotaro				
	Product Code	SPL-1051 and SPL-1052			
	Validation Date	November 1, 2011			
	Validation Date	NOVERIBEI 1, 2011			
2.	На	azards Identification			
	Er	nergency Overview			
	Physical State	Semi-solid, grease			
	Color	Green			
	Odor	Mild petroleum odor			
		NOT EXPERIENCE OF PROPERTY OF A PROPERTY OF			
	Hazard Statements	NOT EXPECTED TO PRODUCE SIGNIFICANT ADVERSE HEALTH EFFECTS WHEN THE RECOMMENDED INSTRUCTIONS FOR USE ARE FOLLOWED.			
		While this material is not considered hazardous by the OSHA			
		Hazard Communication Standard (29 CFR 1910.1200), this			
	OSHA/HCS Status	MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be			
		retained and available for employees and other users of the			
		product.			
	Routes of Entry	Dermal contact. Eye contact. Ingestion			
		tial acute health effects			
	Inhalation	No known significant effects or critical hazards.			
	Ingestion	No known significant effects or critical hazards.			
	Skin	No known significant effects or critical hazards.			
	Eyes	No known significant effects or critical hazards.			
		al chronic health effects			
	Chronic effects	No known significant effects or critical hazards.			
	Carcinogenicity	No known significant effects or critical hazards.			
	Mutagenicity	No known significant effects or critical hazards.			
	Teratogenicity	No known significant effects or critical hazards.			
	Fertility effects Developmental effects	No known significant effects or critical hazards. No known significant effects or critical hazards.			
		posure signs/symptoms			
	Inhalation	No specific data			
	Ingestion	No specific data			
	Skin	No specific data			
	Eyes	No specific data			
	Medical conditions aggravated by over-	None known			
	exposure				
3.	Сотро	osition/Component Data			

	Name	CAS Number	EINECS Number	%			
	No Haza	rdous or Reportable Ingre	dients				
4.		First Aid Measures					
			e any contact lenses. In				
	Eye Contact		ter for at least 15 minu				
	Lyo Johnaol		lower eyelids. Get med	lical attention if			
			symptoms occur.				
		In case of contact, imr	nediately flush skin wit	with plenty of water			
	Skin Contact		while removing containing before reuse. Get i				
			_	medical attention			
		f symptoms occur. to fresh air. If not breathing, if breathing					
			is irregular or if respiratory arrest occurs, provide artificial				
	Inhalation	respiration or oxygen by trained personne					
			llar, tie, belt, or waistba				
			ion if symptoms occur				
			water. Do not induce				
	Ingestion	directed to do so my medical personnel. Never give anything					
	ingestion	by mouth to an unconscious person. Get medical attention if					
		symptoms occur.					
	Protection for first-aiders	No action shall be taken involving any personal risk or without					
_		suitable training.					
	Note to Dhysisian	No specific treatment. Treat symptomatically. Contact poison					
	Note to Physician	treatment specialist immediately if large quantities have been ingested or inhaled.					
		ingested of initialed.					
5.	F	irefighting Measures					
	Suitable Extinguishing Media	Dry Chemic	cal, CO _{2,} Foam. or Wate				
		Promptly isolate the scene by removing all persons from the					
	Special Exposure Hazards	Special Exposure Hazards vicinity of the incident if there is a fire. No action shall be t					
		involving any personal risk or without suitable training.					
	Hazardous thermal decomposition		ce carbon monoxide, c				
	products		as small amounts of o				
	Special protective equipment for	Fire-fighters should wear protective equipment and self-					
	firefighters	_	apparatus (SCBA) with	•			
-	operated in positive pressure mode.						
6.	Accie	_ dental Release Measu	res				
0.	ACCI	No action shall be take		al risk or withou			
	_		Evacuate surrounding				
	Personal Precautions						
		unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate					

	personal protection equipment (see Section 8).						
	Environmenta	ıl Precautions	Avoid di soil, authorit	spersal of waterways ies if the p (sev	spilled material and ru , drains, and sewers. I roduct has caused en vers, waterways, soil,	unoff and contact with nform the relevant vironmental pollution or air).	
	Methods fo	or Clean up	Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container Dispose of via a licensed waste disposal contractor. Large spill: Move containers from spill area. Prevent entry into sewers, water courses, basements, or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor Note: See section 1 for emergency contact information and section 13 for waste disposal.				
7.		H	 andling a	nd Stora	ae		
7.	Handling and Storage Put on appropriate personal protection equipment (see see 8). Eating, drinking, and smoking should be prohibited in where this material is handled, stored, and processed Workers should wash hands and face before eating, drin and smoking. Remove contaminated clothing and protection equipment before entering eating areas.				be prohibited in areas d, and processed. efore eating, drinking, othing and protective		
	Stoi	rage	Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.			ons. Store in original ont in a dry, cool, and atible materials (see ntainer tightly closed ners that have been ept upright to prevent iners. Use appropriate	
8.		Exposure Limits	s and Personal Protective Equipment				
	United States						
				Occupational Exposure Limits			
				xposure L		uits	
		Occu Ingredient		xposure L	imits Exposure Lim	iits	
		Ingredient	ipational E	nada	Exposure Lim	iits	
	Ingredient	Ingredient	pational E Car		Exposure Lim	Ceiling	
	Ingredient	Ingredient Occu	Car upational E TWA (8	nada Exposure L Hours)	Exposure Lim		
	Ingredient	Occu List Name	Car upational E TWA (8	nada Exposure L Hours)	Exposure Liminits STEL (15 mins)		
	Ingredient	Occu List Name	Car upational E TWA (8	nada Exposure L Hours)	Exposure Liminits STEL (15 mins)	Ceiling	
	Ingredient	Occu List Name Occu	Car upational E TWA (8	nada Exposure L Hours)	Exposure Lim imits STEL (15 mins) imits	Ceiling	
	Recommended Mor	Occu List Name Occu Ingredient Occu Ingredient	Car upational E TWA (8 Me: upational E If this persor may ventilat	nada Exposure L Hours) Exico Exposure L Exp	imits STEL (15 mins) imits Exposure Lim ontains ingredients wace, atmosphere, or bed to determine the effer control measures are spiratory protective ecospications.	Ceiling ith exposure limits, iological monitoring fectiveness of the ind/or the necessity to quipment.	
		Occu List Name Occu Ingredient Occu Ingredient	Car upational E TWA (8 Me: upational E If this persor may ventilat	nada Exposure L Hours) Exico Exposure L Exp	imits STEL (15 mins) imits Exposure Lim ontains ingredients wace, atmosphere, or bed to determine the effer control measures are spiratory protective ecospications.	Ceiling ith exposure limits, iological monitoring fectiveness of the ind/or the necessity to	

	Hygiene Measures	should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking or using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location. Personal Protection
	Respiratory	Use properly fitted, air-purifying or air fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
	Hands	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
	Eyes	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposures to liquid splashes, mists, or dusts.
	Skin	Personal protection equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
	Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements or environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
9.	Physica	l and Chemical Properties
	Physical State	Semi-solid, grease
ļ	Flash Point	Not Available
ļ	Auto-ignition Temperature	Not Available
	Flammable Limits	Not Available
	Color	Green
	Odor	Mild petroleum odor
	pH	Not Available
	Boiling/condensation Point	Not Available
	Melting/freezing Point	Not Available
	Density	0.972 g/cm ³
	Vapor Pressure	Not Available
	1	Not Available
	Vapor Density	
!	Volatility	Not Available
	Volatility Evaporation Data	Not Available Not Available
	Volatility	Not Available

			oluble in the followin	le in the following materials: hot and cold water			
	Physical/chemical Properties Com	ments		Not	Available		
10.		Sta	abilitv a	nd reactivity			
101	Chemical Stability		iomity an		duct is stable		
	Conditions to avoid				pecific data		
	Incompatible Materials				pecific data		
	Hazardous Decomposition Prod	ucts		er normal conditions			
				decomposition produer normal conditions			
	Possibility of Hazardous Reacti	ons	Ona		s will not occur.	se, nazardous	
11.		7	 Toxicolo	ogical Data			
			te Toxicit	ty: None known			
				d States			
	Product/Ingredient Name	Re	sult	Species	Dose	Exposure	
			Ca	nada			
	Product/Ingredient Name	Re	sult	Species	Dose	Exposure	
			Me	exico			
	Product/Ingredient Name	Re	sult	Species	Dose	Exposure	
	Chronic Toxicity	Repeate	epeated or prolonged exposure to spray or mist may produce respiratory tract irritation.				
			Skin: No known significant effects or critical hazards.				
			Eyes: No known significant effects or critical hazards.				
	Irritation/Corrosion		Respiratory: Repeated or prolonged exposure to spray or mist				
			Skin:	may produce respiratory tract irritation. in: No specific information is available regarding the skin			
				sitizing properties of			
	Sensitizer				ed for humans.		
			Respiratory: Sensitization not expected for humans.				
	Carcinogenicity		There is no data on the preparation itself. Carcinogenicity not				
			There	suspect is no data on the pr	ed for humans. eparation itself. N	lutagenicity not	
	Mutagenicity			suspect	ed for humans.		
	Teratogenicity		There	is no data on the pre suspect	paration itself. To ed for humans.	eratogenicity not	
	Reproductive Toxicity		There is	no data on the prep		considered to be	
				uanger c	, as to numans.		
12.			Ecolog	ical Data			
	Ecotoxicity			Not readi	y biodegradable		
			United	d States			
	l						

	Aquatic Ecotoxicity	There is no data available on the preparation itself			
	Persistence/Degradability	This product has not been tested for biodegradation. Not readily biodegradable. This product is not expected to bioacculumate through food chains in the environment.			
	Canada				
	Aquatic Ecotoxicity There is no data available on the prepa				
	Persistence/Degradability	This product has not been tested for biodegradation. Not readily biodegradable. This product is not expected to bioacculumate through food chains in the environment.			
		Mexico			
	Aquatic Ecotoxicity	There is no data available on the preparation itself			
	Persistence/Degradability	This product has not been tested for biodegradation. Not readily biodegradable. This product is not expected to bioacculumate through food chains in the environment.			
13.	Dis	sposal Considerations			
	Waste Disposal	The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions, and any by-products should at all times comply with the requirement of environmental protection and waste disposal legislation and any regional or local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and it's container must be disposed of in a safe way. Empty containers or liners may contain some product residues. Avoid dispersal of spilled material and run-off and contact with soil, waterways, drains, and sewers.			
	Disposal should be in accordance with	applicable regional, national, and local laws and regulations			
Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE LIMITS AND PE PROTECTIVE EQUIPMENT for additional handling information and protection of employed					
14.	Trar	nsportation Information			

Regulatory Information	UN Number	Proper Shipping Name	Classes	Packing Group	Label	Additional Information
DOT Classification	Not					
	Regulated					
TDG Classification	Not					
	Regulated					
Mexico Classification	Not					
	Regulated					
ADR/RID Class	Not Regulated					
IMDG Class	Not Regulated					
IATA-DGR Class	Not Regulated					

15.	Regulatory Information					
	United States					
	HSC Classification Not Regulated					
	TSCA 8(a) IUR Exempt/Partial Exemption	Not Determined				
	United States Inventory (TSCA 8b)	All components are listed or exempt				
	Clean Air Act Section 112(b) – Hazardous Air Pollutants (HAP'S)	Not listed				

SARA 313: No listed substances

	Product Name	CAS Number	Concentration %
Form R Reporting			
Requirements			
Supplier Notification			

Canada				
WHMIS (Canada)	Not controlled under WHMIS (Canada)			
Canadian NPRI	None of the components are listed			
EPA Toxic Substances	None of the components are listed			
Canada Inventory	All components are listed or exempted			
	Mexico			
Classification	Health: 1 Flammability: 1 Reactivity: 0			

16.		Other Information			
	Labeling Requirements	NOT EXPECTED TO PRODUCE SIGNIFICANT A HEALTH EFFECTS WHEN THE RECOMMEN INSTRUCTIONS FOR USE ARE FOLLOWE			
	Hazardous Material Information System (USA)	HEALTH FLAMMABILITY REACTIVITY PERSONAL PROTECTION	HMIS Ratings are based on a 0-4 scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks.		
	The customer is responsible	e for determining the PPE c	ode for thi	s material.	
	Date of Issue	Nov	ember 1, 2	2011	
	Version		2		
	Changes from Previous Version		Yes		
	Prepared by:	ECL Research an	d Develop	ment Department	
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