LS-29

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1. Identification					
I.1. Product identifier					
Product Identity	LS-29				
Alternate Names	LS-29 (CP-29)				
1.2. Relevant identified uses of the substance or	mixture and uses advised against				
Intended use	See Technical Data Sheet.				
Application Method	See Technical Data Sheet.				
1.3. Details of the supplier of the safety data she	et				
Company Name	Lone Star Lubricants				
	2232 Moneda Street				
	Fort Worth, TX 76117-5310				
Emergency	(817) 831-2522				
ustomer Service: Lone Star Lubricants (817) 831-2522 Fax: (817) 834-0447					

2. Hazard(s) identification

2.1. Classification of the substance or mixture

No applicable GHS categories.

2.2. Label elements

Using the Toxicity Data listed in section 11 and 12 the product is labeled as follows.

No applicable GHS categories.

[Prevention]:

No GHS prevention statements [Response]: No GHS response statements [Storage]: No GHS storage statements [Disposal]: No GHS disposal statements

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3. Composition/information on ingredients

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified CAS Number: 0064742-52-5	50 - 75	Asp. Tox. 1;H304	[1]
Copper CAS Number: 0007440-50-8	25 - 50	Not Classified	[1][2]
Di-2-ethyl hexyl azelate CAS Number: 0000103-24-2	1.0 - 10	Not Classified	[1]
Diatomaceous earth CAS Number: 0061790-53-2	1.0 - 10	Not Classified	[1]
Graphite CAS Number: 0007782-42-5	1.0 - 10	Not Classified	[1]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. First aid measures

4.1. Description of first aid measures

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.
Skin	Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
Ingestion	If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.
4.2. Most important syn	nptoms and effects, both acute and delayed
Overview	Eyes - can cause irritation, redness, blurred vision. Skin - prolonged contact can cause irritation and dermatitis. Ingestion - can cause gastrointestinal irritation, nausea, vomiting, and diarrhea. Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

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Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

5. Fire-fighting measures

5.1. Extinguishing media

CO2, Foam, Dry Chemical, or Halon.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Irritating and/or toxic fumes, including Copper, Sulfur and Carbon Compounds may be released in a fire situation

5.3. Advice for fire-fighters

Wear self-contained breathing apparatus. Do not extinguish with water.

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6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

6.2. Environmental precautions

Do not allow spills to enter drains or waterways.

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

6.3. Methods and material for containment and cleaning up

Clean spill with absorbent material Eliminate ignition sources Do not store greasy materials in enclosed containers for long periods of time Wear gloves, goggles and gas mask if TWA's are exceeded.

7. Handling and storage

7.1. Precautions for safe handling

Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Protect from physical damage. Store in a cool, dry, ventilated area away from acids, alkalis, and open flames. Incompatible materials: Strong oxidizing agents and acids.

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7.3. Specific end use(s)

No data available.

8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000103-24-2 Di-2-ethyl hexyl azelate		OSHA	No Established Limit
	ACGIH	No Established Limit	
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007782-42-5	Graphite	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit
0007440-50-8 Copper		OSHA	TWA 1 mg/m3 [*Note: The PEL also applies to other copper compounds (as Cu) except copper fume.]
		ACGIH	TWA: 0.2 mg/m3 (fume) 1 mg/m3 (dusts and mists)
		NIOSH	TWA 1 mg/m3 [*Note: The REL also applies to other copper compounds (as Cu) except Copper fume.]
		Supplier	No Established Limit
0061790-53-2	Diatomaceous earth	OSHA	No Established Limit
			TWA: 1.5 mg/m3 (respirable) 4 mg/m3 (total)
		NIOSH	No Established Limit
		Supplier	No Established Limit
0064742-52-5	Distillates (petroleum), hydrotreated heavy	OSHA	No Established Limit
	naphthenic; Baseoil-unspecified	ACGIH	No Established Limit
		NIOSH	No Established Limit
			No Established Limit

Contains mineral oil. The exposure limits for oil mist are 5 mg/m3 OSHA PEL and 10 mg/m3 ACGIH.

Carcinogen Data

CAS No.	Ingredient	Source	Value		
0000103-24-2	Di-2-ethyl hexyl azelate	OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		
0007782-42-5	Graphite	OSHA	Select Carcinogen: No		
		NTP	Known: No; Suspected: No		
		IARC Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: N			
0007440-50-8	Copper	OSHA Select Carcinogen: No			
		NTP	Known: No; Suspected: No		
		IARC	IARC Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;		

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0061790-53-2	Diatomaceous earth	OSHA	Select Carcinogen: No
		NTP Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0064742-52-5	0064742-52-5 Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified		Select Carcinogen: No
			Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;

8.2. Exposure controls	
Respiratory	Use NIOSH approved organic respirator if TWA/TLV limits are exceeded.
Eyes	Wear safety glasses or goggles
Skin	Chemical resistant gloves
Engineering Controls	Use to maintain levels below TWA limits. Use non sparking equipment.
Other Work Practices	Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

9. Physical and chemical properties

_	
Appearance	Copper Paste
Odor	None
Odor threshold	Not determined
рН	Not Measured
Melting point / freezing point	Not Measured
Initial boiling point and boiling range	Not Measured
Flash Point	>300F (C.O.C)
Evaporation rate (Ether = 1)	Not Measured
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: Not Measured
	Upper Explosive Limit: Not Measured
Vapor pressure (Pa)	Not Measured
Vapor pressure (Pa) Vapor Density	Not Measured Not Measured
• • • • •	
Vapor Density	Not Measured
Vapor Density Specific Gravity	Not Measured Not Measured
Vapor Density Specific Gravity Solubility in Water	Not Measured Not Measured Slight
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow)	Not Measured Not Measured Slight Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature	Not Measured Not Measured Slight Not Measured Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature Decomposition temperature	Not Measured Not Measured Slight Not Measured Not Measured Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature Decomposition temperature Viscosity (cSt)	Not Measured Not Measured Slight Not Measured Not Measured Not Measured Not Measured
Vapor Density Specific Gravity Solubility in Water Partition coefficient n-octanol/water (Log Kow) Auto-ignition temperature Decomposition temperature Viscosity (cSt) Density (lbs/gal)	Not Measured Not Measured Slight Not Measured Not Measured Not Measured Not Measured

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10. Stability and reactivity

10.1. Reactivity

Hazardous Polymerization will not occur.

10.2. Chemical stability

Stable under normal circumstances.

10.3. Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Avoid open flame.

10.5. Incompatible materials

Strong oxidizing agents and acids.

10.6. Hazardous decomposition products

Irritating and/or toxic fumes, including Copper, Sulfur and Carbon Compounds may be released in a fire situation

11. Toxicological information

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Ingredient	Oral LD50, mg/kg	Skin LD50, mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist LC50, mg/L/4hr	Inhalation Gas LC50, ppm
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	> 5,000.00, Rat - Category: NA	No data available	No data available	5.70, Rat - Category: NA	No data available
Copper - (7440-50-8)	2,500.00, Rat -	>2,000.00, Rat -	No data	5.11, Rat -	No data
	Category: 5	Category: 5	available	Category: NA	available
Di-2-ethyl hexyl azelate - (103-24-2)	No data	No data	No data	No data	No data
	available	available	available	available	available
Diatomaceous earth - (61790-53-2)	No data	No data	No data	No data	No data
	available	available	available	available	available
Graphite - (7782-42-5)	No data	No data	No data	2.82, Rat -	No data
	available	available	available	Category: 4	available

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

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Classification	Category	Hazard Description	
Acute toxicity (oral)		Not Applicable	
Acute toxicity (dermal)		Not Applicable	
Acute toxicity (inhalation)		Not Applicable	
Skin corrosion/irritation		Not Applicable	
Serious eye damage/irritation		Not Applicable	
Respiratory sensitization		Not Applicable	
Skin sensitization		Not Applicable	
Germ cell mutagenicity		Not Applicable	
Carcinogenicity		Not Applicable	
Reproductive toxicity		Not Applicable	
STOT-single exposure		Not Applicable	
STOT-repeated exposure		Not Applicable	
Aspiration hazard		Not Applicable	

12. Ecological information

12.1. Toxicity

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Ingredient	96 hr LC50 fish, mg/l	48 hr EC50 crustacea, mg/l	ErC50 algae, mg/l
Distillates (petroleum), hydrotreated heavy naphthenic; Baseoil-unspecified - (64742-52-5)	5,000.00, Oncorhynchus mykiss	1,000.00, Daphnia magna	1,000.00 (96 hr), Scenedesmus subspicatus
Copper - (7440-50-8)	0.0103, Pimephales promelas	0.0025, Daphnia magna	0.018 (72 hr), Pseudokirchneriella subcapitata
Di-2-ethyl hexyl azelate - (103-24-2)	Not Available	Not Available	Not Available
Diatomaceous earth - (61790-53-2)	Not Available	Not Available	Not Available
Graphite - (7782-42-5)	Not Available	Not Available	Not Available

This product is covered by EPA's Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Petroleum Exclusion. Therefore releases to air, land, or water are not reportable under CERCLA ("Superfund"). However, under Section 311 of EPA's Clean Air Water Act (CWA). This product is considered an oil. As such, spills into or leading to surface waters that cause a sheen must be reported to the national response center, 800-424-8802.

This product is an oil under 49 CFR (DOT) part 130. If shipped by rail or highway in a tank with a capacity of 3,500 gallons or more, it is subject to the requirements of part 130. Mixture solutions in which this product is present at 10% or more may also be subject to this rule.

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

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12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

12.6. Other adverse effects

No data available.

13. Disposal considerations

13.1. Waste treatment methods

Conditions of use may cause this material to become a "hazardous waste", as defined by federal or state regulations. It is the responsibility of the user to determine if the material is a "hazardous waste" at the time of disposal. Transportation, treatment, storage, and disposal of waste material must be conducted in accordance with RCRA regulations (see 40 CFR 260 through 40 CFR 271). State and/or local regulations may be more restrictive. Contact your regional US EPA office for guidance concerning case specific disposal issues. Empty drums and pails retain residue. DO NOT pressurize, cut, weld, braze solder, drill or expose this products empty container to heat, flame or other ignition sources. DO NOT attempt to clean it. Empty drums and pails should be drained completely, properly bunged or sealed, and promptly sent to a reconditioner

14. Transport information					
	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA		
14.1. UN number	Not Applicable	Not Regulated	Not Regulated		
14.2. UN proper shipping name	Not Regulated	Not Regulated	Not Regulated		
14.3. Transport hazard class(es)	DOT Hazard Class: Not Applicable	IMDG: Not Applicable Sub Class: Not Applicable	Air Class: Not Applicable		
14.4. Packing group	Not Applicable	Not Applicable	Not Applicable		
14.5. Environmental hazar	ds				
IMDG Mari	ine Pollutant: No				
14.6. Special precautions f	for user				

No further information

15. Regulatory information

Regulatory Overview	The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.
Toxic Substance Control Act (TSCA)	All components of this material are either listed or exempt from listing on the TSCA Inventory.

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WHMIS Classification Not Regulated

US EPA Tier II Hazards

Fire: No Sudden Release of Pressure: No Reactive: No Immediate (Acute): No Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Copper (5,000.00)

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:

Copper

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Copper

Diatomaceous earth

Pennsylvania RTK Substances (>1%):

Copper

16. Other information

The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind, expressed or implied, is made with respect to the information contained herein. We accept no responsibility and disclaim all liability for any harmful effects which may be caused by exposure to our products. Customers/users of this product must comply with all applicable health and safety laws, regulations, and orders.

The full text of the phrases appearing in section 3 is:

H304 May be fatal if swallowed and enters airways.

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This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. Users should make their own investigations to determine the suitability of the information or products for their particular purpose. The conditions or methods of handling, storage, use, and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with handling, storage, use or disposal of the product.

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