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1. Identification

1.1. Product identifier

Product Identity SA-12C COPPER ANTI-SEIZE

Alternate Names SA-12C COPPER ANTI-SEIZE

1.2. Relevant identified uses of the substance or mixture and uses advised against

Intended use Anti-Seize Lubricant.

Application Method See Technical Data Sheet.

1.3. Details of the supplier of the safety data sheet

Company Name SAF-T-LOK International Corporation

300 EISENHOWER LANE NORTH

LOMBARD, IL 60148

Emergency

 CHEMTREC (USA)
 (800) 424-9300

 24 hour Emergency Telephone No.
 (703) 527-3887

 Customer Service: SAF-T-LOK International
 (630) 495-2001

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2. Hazard(s) identification

2.1. Classification of the substance or mixture

Flam. Aerosol 1;H222 Extremely flammable aerosol.

Press. Gas;H280 Contains gas under pressure; may explode if heated.

Flam. Liq. 2;H225 Highly Flammable liquid and vapor.

Asp. Tox. 1;H304 May be fatal if swallowed and enters airways.

2.2. Label elements



Danger

H222 Extremely flammable aerosol.

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H225 Highly flammable liquid and vapor.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

Pressurized container: May burst if heated.

[Prevention]:

P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.

P211 Do not spray on an open flame or other ignition source.

P233 Keep container tightly closed.

P240 Ground / bond container and receiving equipment.

P241 Use explosion-proof electrical / ventilating / light / equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P251 Pressurized container: Do not pierce or burn, even after use.

P273 Avoid release to the environment.

P280 Wear protective gloves / eye protection / face protection.

[Response]:

P301+310 IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.

P331 Do NOT induce vomiting.

P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.

P391 Collect spillage.

[Storage]:

P403+235 Store in a well ventilated place. Keep cool.

P405 Store locked up.

P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C / 122 °F.

[Disposal]:

P501 Dispose of contents / container in accordance with local / national regulations.

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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 %	CAS-NO.
PETROLEUM DISTILLATES	40-50	64742-47-8
HYDROTREATED HEAVY NAPHTHENIC	10-20	64742-48-9
PROPANE/ISOBUTANE/N-BUTANE	20-30	68476-86-8
GRAPHITE	1-10	7782-42-5
COPPER	1-10	7440-50-8
ALUMINUM POWDER	1-10	7429-90-5

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.

Section 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.

Irrigate copiously with clean water for at least 15 minutes, holding the eyelids **Eyes**

apart and seek medical attention.

Skin Remove contaminated clothing. Wash skin thoroughly with soap and water or

use a recognized skin cleanser.

Ingestion If accidentally swallowed obtain immediate medical attention. Keep at rest. Do

NOT induce vomiting.

4.2. Most important symptoms and effects, both acute and delayed

Overview

Treat symptomatically. 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, fatique, 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

^[3] PBT-substance or vPvB-substance.
*The full texts of the phrases are shown in Section 16.

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damage. See section 2 for further details.

Inhalation May be fatal if swallowed and enters airways.

Section 5. Fire-fighting measures

5.1. Extinguishing media

Water fog. Dry chemical. Carbon dioxide (CO2). Cool containers/tanks with water spray. Unsuitable Extinguishing Media Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition: Carbon oxides, Fumes, Hydrocarbons.

5.3. Advice for fire-fighters

As with all fires, wear positive pressure, self-contained breathing apparatus, (SCBA) with a full face piece and protective clothing. Persons without respiratory protection should leave area. Wear SCBA during clean-up immediately after fire. No smoking.

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Use shielding to protect fire-fighters from bursting containers. Extremely flammable/Flammable. Keep product and empty container away from heat and sources of ignition.

Keep away from heat / sparks / open flames / hot surfaces - No smoking.

Do not spray on an open flame or other ignition source.

Keep container tightly closed.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Pressurized container: Do not pierce or burn, even after use.

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Section 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

Prevent further leakage or spillage if safe to do so. Absorb or cover with dry earth, sand or other non-

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combustible material and transfer to containers.

Contain liquid and collect with an inter,,non-combustible material. Pick up and transfer to properly labeled containers. Soak up with inert absorbent material. Clean contaminated surface thoroughly. After cleaning, flush away traces with water. Prevent product from entering drains. Take precautionary measures against static discharges.

Section 7. Handling and storage

7.1. Precautions for safe handling

Handle containers carefully to prevent damage and spillage.

Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists. Use with adequate ventilation. Keep container away from heat, flames, and all other sources of ignition. Keep can away from all sources of electricity such as electric motors and batteries. Do not spray on hot surfaces. See section 2 for further details. - [Prevention]:

7.2. Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep in properly labeled containers. Keep out of the reach of children.

Incompatible materials: Store away from strong acids, alkalis, or oxidizing agents.

See section 2 for further details. - [Storage]:

7.3. Specific end use(s)

No data available.

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Section 8. Exposure controls and personal protection

8.1. Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum powder (AI) (stabilized)	OSHA	TWA 15 mg/m3 (total) TWA 5 mg/m3 (resp)
		ACGIH	TWA: 1.o mg/m3
		NIOSH	TWA 10 mg/m3 (total) TWA 5 mg/m3 (resp)
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.]
0007782-42-5	Graphite	OSHA	TWA 15 mg/m3 TWA 15 mppcf
		ACGIH	TWA: 2 mg/m3
		NIOSH	TWA 2.5 mg/m3 (resp)
0064742-47-8	Distillates (petroleum), hydrotreated light	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
0064742-52-5 Distillate (petroleum)		OSHA	No Established Limit
	hydrotreated heavy naphthenic	ACGIH	No Established Limit
		NIOSH	No Established Limit
0068476-86-8	Petroleum gases, liquefied	OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit

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

8.2. Exposure controls

If workers are exposed to concentrations above the exposure limit they must Respiratory

use the appropriate, certified respirators.

Eyes Protective safety glasses recommended

Skin Protective gloves recommended.

Provide adequate ventilation. Where reasonably practicable this should be **Engineering Controls**

achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be

Other Work Use good personal hygiene practices. Wash hands before eating, drinking, **Practices**

smoking or using toilet. Promptly remove soiled clothing and wash thoroughly

before reuse.

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See section 2 for further details.

Section 9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance Opaque Copper

Odor Solvent

Odor threshold Not determined

pH N/A
Melting point / freezing point N/A

Initial boiling point and boiling range Not available

Flash Point -104.4 °C / -156 °F Based on propellant

Evaporation rate (Ether = 1) Not Determined Flammability (solid, gas) Not Applicable

Upper/lower flammability or explosive limits Lower Explosive Limit: Not available

Upper Explosive Limit: Not available

Vapor pressure (Pa)Not availableVapor DensityNot available

Specific Gravity

Solubility in Water

Partition coefficient n-octanol/water (Log Kow)

Auto-ignition temperature

Decomposition temperature

Viscosity (cSt)

0.828

Negligible

Not Measured

Not Measured

Not Measured

VOC Content 65.18

9.2. Other information

No other relevant information.

Section 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

Extremes of temperature and direct sunlight.

10.5. Incompatible materials

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Store away from strong acids, alkalis, or oxidizing agents.

10.6. Hazardous decomposition products

Carbon oxides, Fumes, Hydrocarbons.

Section 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.

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 Estimat

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 light - (64742-47-8)	> 5,000.00, Rat - Category: NA	>2,000.00, Rabbit - Category: 5			
Petroleum gases, liquefied - (68476-86-8)					
Distillate (petroleum) hydrotreated heavy naphthenic - (64742-52-5)	> 5,000.00, Rat - Category: NA			5.70, Rat - Category: NA	
Aluminum powder (AI) (stabilized) - (7429-90-5)	15,900.00, Rat - Category: NA				
Copper - (7440-50-8)	2,500.00, Rat - Category: 5	>2,000.00, Rat - Category: 5		5.11, Rat - Category: NA	
Graphite - (7782-42-5)	>2,000.00, Rat - Category: 5				

Carcinogen Data

CAS No.	Ingredient	Source	Value
0007429-90-5	Aluminum powder (AI)	OSHA	Regulated Carcinogen: No

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	(stabilized)	NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0007440-50-8	Copper	OSHA	Regulated 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	Regulated Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0064742-47-8	Distillates (petroleum), hydrotreated light	OSHA	Regulated 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	Distillate (petroleum)	OSHA	Regulated Carcinogen: No	
	hydrotreated heavy naphthenic	NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	
0068476-86-8	Petroleum gases, liquefied	OSHA	Regulated Carcinogen: No	
		NTP	Known: No; Suspected: No	
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;	

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	1	May be fatal if swallowed and enters airways.

Section 12. Ecological information

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Toxic to aquatic life with long lasting effects.

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 light - (64742-47-8)	20.00, Oncorhynchus mykiss	1.40, Daphnia magna	8.30 (72 hr), Pseudokirchneriella subcapitata
Petroleum gases, liquefied - (68476-86-8)	Not Available	Not Available	Not Available
Distillate (petroleum) hydrotreated heavy naphthenic - (64742-52-5)	5,000.00, Oncorhynchus mykiss	1,000.00, Daphnia magna	1,000.00 (96 hr), Scenedesmus subspicatus
Aluminum powder (AI) (stabilized) - (7429-90-5)	6.17, Oncorhynchus mykiss	0.72, Ceriodaphnia dubia	0.35 (72 hr), Pseudokirchneriella subcapitata
Copper - (7440-50-8)	0.0103, Pimephales promelas	0.0025, Daphnia magna	0.018 (72 hr), Pseudokirchneriella subcapitata
Graphite - (7782-42-5)	101.00, Danio rerio	101.00, Daphnia magna	101.00 (72 hr), Pseudokirchneriella subcapitata

12.2. Persistence and degradability

There is no data available on the preparation itself.

12.3. Bioaccumulative potential

Not Measured

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.

Section 13. Disposal considerations

13.1. Waste treatment methods

Observe all federal, state and local regulations when disposing of this substance.

Section 14. Transport information

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
14.1. UN number	UN1950	UN1950	UN1950
14.2. UN proper	UN1950, Aerosols, Limited	Aerosols, Limited	Aerosols, Limited
shipping name	Quantity, 2.1, NA	Quantity	Quantity

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14.3. Transport hazard DOT Hazard Class: 2.1

class(es)

IMDG: 2.1 Sub Class: Not

Applicable

14.4. Packing group Not Applicable

Not Applicable

Not Applicable

Air Class: 2.1

14.5. Environmental hazards

IMDG Marine Pollutant: Yes; (Zinc oxide)

14.6. Special precautions for user

No further information

Section 15. Regulatory information

Regulatory The regulatory data in Section 15 is not intended to be all-inclusive, only

Overview selected regulations are represented.

Toxic Substance All components of this material are either listed or exempt from listing on the

Control Act (TSCA) TSCA Inventory.

US EPA Tier II Fire: Yes

Hazards

Sudden Release of Pressure: Yes

Reactive: No

Immediate (Acute): Yes Delayed (Chronic): No

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:

Aluminum powder (AI) (stabilized)

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.

Proposition 65 Label Warning:

This product contains no chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

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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:

H220 Extremely flammable gas.

H228 Flammable solid.

H261 In contact with water releases flammable gases.

H280 Contains gas under pressure; may explode if heated.

H304 May be fatal if swallowed and enters airways.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

The information on this material safety data sheet represents our current data and best opinion as to the proper use in handling of this product under normal conditions. Any use of the product which is not in conformance with this data sheet or which involves using the product in combination with any other product or any other process is the responsibility of the user. SAF-T-LOK International Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability and fitness for a particular purpose, arising from sale or use of SAF-T-LOK International Corporation products.

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