

Material Safety Data Sheet

acc. to ISO9001: 2000

Section 1-Chemical product and company identification

Product name: Copper Grease Spray CG-200-AM-RE, CG-400-AM-RE, CG-540-AM-RE

Effective Date: 2020-08-01

MSDS#:2020080101

Manufacturer/Supplier: ABRO INDUSTRIES, INC.

3580 Blackthorn Court South Bend, IN 46628, USA

COMPANY PHONE: +574-232-8289

Emergency Information: Chemtrec: US/Canada 1-800-424-9300

International +1-703-527-3887

Section 2 - Hazards Identification

| | | |
|------------------------------|--|---------------|
| Physical hazards | Flammable aerosols | Category 1 |
| | Gases under pressure | Liquefied gas |
| Health hazards | Not classified. | |
| Environmental hazards | Hazardous to the aquatic environment, acute hazard | Category 1 |
| | Hazardous to the aquatic environment, long-term hazard | Category 1 |
| OSHA defined hazards | Not classified. | |
| Label elements | | |

Signal word Danger

Hazard statement Extremely flammable aerosol. Contains gas under pressure; may explode if heated.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not apply while equipment is energized. Extinguish all flames, pilot lights and heaters. Vapors will accumulate readily and may ignite. Use only with adequate ventilation; maintain ventilation during use and until all vapors are gone. Open doors and windows or use other means to ensure a fresh air supply during use and while product is drying. Avoid release to the environment.

Response

Wash hands after handling.

Storage

Store in a well-ventilated place. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Exposure to high temperature may cause can to burst.

Disposal

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

Hazard(s) not otherwise classified (HNOC)

None known.

Section 3 - Composition / Information on Ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|---------------------------------|-------------------|----------|
| Distillates Hydrotreated Heavy Paraffinic | (Petroleum), | 64742-54-7 | 30 - 50 |
| Limestone | | 1317-65-3 | 10 - 20 |
| Copper | | 7440-50-8 | 3 - 15 |
| Graphite | | 7782-42-5 | 3 - 8 |
| Amorphous Silica | | 7782-42-5 | 3 - 8 |
| Liquefied Petroleum Gas | | 68476-86-8 | 20 - 30 |

Specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Section 4 - First aid measures

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| Inhalation | Move to fresh air. If not breathing, give artificial respiration. Call a physician if symptoms develop or persist. |
| Skin contact | Wash off immediately with plenty of water. Take off contaminated clothing and wash before reuse. Get medical attention if irritation develops and persists. |
| Eye contact | Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. |
| Ingestion | Do not induce vomiting. Call a physician immediately. Never give anything by mouth to a victim who is unconscious or is having convulsions. |
| Most important symptoms/effects, acute and delayed | Direct contact with eyes may cause temporary irritation. |
| Indication of immediate medical attention and special treatment needed | Provide general supportive measures and treat symptomatically. |
| General information | Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. |

Section 5 - Fire-Fighting Measures

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| Suitable extinguishing media | Water fog. Dry chemical powder. Carbon dioxide (CO2). |
| Unsuitable extinguishing media | Do not use a solid water stream as it may scatter and spread fire. |
| Specific hazards arising from the chemical | Contents under pressure. Pressurized container may rupture when exposed to heat or flame. During fire, gases hazardous to health may be formed. |
| Special protective equipment and precautions for firefighters | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |
| Fire-fighting equipment/instructions | In case of fire: Stop leak if safe to do so. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. |
| General fire hazards | Extremely flammable aerosol. Contents under pressure. Pressurized container may rupture when exposed to heat or flame. |

Section 6 - Accidental Release Measures

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| Personal precautions, protective equipment and emergency procedures | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Emergency personnel need self-contained breathing equipment. Vapors are heavier than air and may spread along floors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS. |
|--|--|

Methods and materials for containment and cleaning up

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

Section 7 - Handling and Storage

Precautions for safe handling

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Use caution around energized equipment. The metal container will conduct electricity if it contacts a live source. This may result in injury to the user from electrical shock and/or flash fire. Avoid contact with eyes, skin, and clothing. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Avoid release to the environment. Observe good industrial hygiene practices. For product usage instructions, please see the product label.

Conditions for safe storage, including any incompatibilities

Level 1 Aerosol.

Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122 °F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

Section 8 - Exposure Controls / Personal Protection

Exposure Guidelines:

A. General Product Information - If oil mists are generated, observe the OSHA exposure limit of 5 mg/m3.

B. Component Exposure Limits - No ACGIH, NIOSH or OSHA exposure guidelines listed for the product's components.

Engineering Controls: Use general ventilation and use local exhaust, where possible, in confined or enclosed spaces.

Eye / Face Protection: Wear safety goggles or faceshield when working with melted material.

Skin Protection: Chemically resistant gloves with thermal protection when working with melted paraffin.

Respiratory Protection: Under normal conditions, respirator is not normally required.

General: Use good industrial hygiene practices.

Section 9 - Physical and Chemical Properties

Appearance

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|--|--------------------------|
| Physical state | Liquid. |
| Form | Aerosol. |
| Color | Copper. |
| Odor | Solvent. |
| Odor threshold | Not available. |
| pH | Not available. |
| Melting point/freezing point | Not available. |
| Initial boiling point and boiling range | 680 °F (360 °C) estimate |

| | |
|---|---------------------------|
| Flash point | > 429.8 °F (> 221 °C) |
| Evaporation rate | Not available. |
| Flammability (solid, gas) | Not available. |
| Upper/lower flammability or explosive limits | |
| Flammability limit - lower (%) | Not available. |
| Flammability limit - upper (%) | Not available. |
| Vapor pressure | 3249.3 hPa estimated |
| Vapor density | Not available. |
| Relative density | 1.06 |
| Solubility (water) | Negligible. |
| Partition coefficient (n-octanol/water) | Not available. |
| Auto-ignition temperature | 500 °F (260 °C) estimated |
| Decomposition temperature | Not available. |
| Viscosity (kinematic) | Not available. |
| Percent volatile | 68 % estimated |

Section 10 - Stability and Reactivity

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|---|---|
| Reactivity | The product is stable and non-reactive under normal conditions of use, storage and transport. |
| Chemical stability | Material is stable under normal conditions. |
| Possibility of hazardous reactions | No dangerous reaction known under conditions of normal use. |
| Conditions to avoid | Heat, flames and sparks. Avoid temperatures exceeding the flash point. Contact with incompatible materials. |
| Incompatible materials | Strong acids. Strong bases. Strong oxidizing agents. |
| Hazardous decomposition products | Carbon oxides. |

Section 11- Toxicological Information

Information on likely routes of exposure

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|---------------------|---|
| Inhalation | Prolonged or excessive inhalation may cause respiratory tract irritation. |
| Skin contact | Prolonged skin contact may cause temporary irritation. |
| Eye contact | Direct contact with eyes may cause temporary irritation. |
| Ingestion | Health injuries are not known or expected under normal use. |

Symptoms related to the physical, chemical and toxicological characteristics Direct contact with eyes may cause temporary irritation.

Information on toxicological effects

Acute toxicity

| Product | Species | Test Results |
|--|---------|-------------------------------|
| Copper Anti-Seize & Lubricating Compound | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | 9949 mg/kg calculated |
| Inhalation | | |
| <i>Mist</i> | | |
| LC50 | Rat | 72.4 mg/l, 4 hours calculated |
| Oral | | |
| LD50 | Rat | 5309 mg/kg calculated |

* Estimates for product may be based on additional component data not shown.

| | |
|--|--|
| Skin corrosion/irritation | Prolonged skin contact may cause temporary irritation. |
| Serious eye damage/eye irritation | Direct contact with eyes may cause temporary irritation. |
| Respiratory sensitization | Not a respiratory sensitizer. |
| Skin sensitization | This product is not expected to cause skin sensitization. |
| Germ cell mutagenicity | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic. |
| Carcinogenicity | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA. |

IARC Monographs. Overall Evaluation of Carcinogenicity

residual oils (petroleum), hydrotreated (CAS 64742-57-0) 3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

| | |
|---|--|
| Reproductive toxicity | This product is not expected to cause reproductive or developmental effects. |
| Specific target organ toxicity - single exposure | Not classified. |
| Specific target organ toxicity - repeated exposure | Not classified. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |
| Chronic effects | Prolonged exposure may cause chronic effects. |

Section 12 - Ecological Information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

| Components | Species | Test Results |
|---|--|----------------------|
| copper (CAS 7440-50-8) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Crustacea | EC50 Water flea (<i>Daphnia magna</i>) | 0.03 mg/l, 48 hours |
| Fish | LC50 Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>) | 0.052 mg/l, 96 hours |
| distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5) | | |
| Aquatic | | |
| Crustacea | EC50 Water flea (<i>Daphnia magna</i>) | 1000 mg/l, 48 hours |
| Fish | LC50 Rainbow trout, donaldson trout (<i>Oncorhynchus mykiss</i>) | 5000 mg/l, 96 hours |
| talc (not containing asbestos fibers) (CAS 14807-96-6) | | |
| Aquatic | | |
| <i>Acute</i> | | |
| Fish | LC50 Zebra danio (<i>Danio rerio</i>) | > 100 g/l, 96 hours |

* Estimates for product may be based on additional component data not shown.

| | |
|--------------------------------------|---|
| Persistence and degradability | No data is available on the degradability of this product. |
| Bioaccumulative potential | No data available. |
| Mobility in soil | No data available. |
| Other adverse effects | No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component. |

Section 13 - Disposal Considerations

Disposal of waste from residues / unused products This product is not a RCRA hazardous waste (See 40 CFR Part 261.20 – 261.33). Empty containers may be recycled. Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with all applicable regulations.

Hazardous waste code Not regulated.

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14 - Transport Information

DOT

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.
Special provisions N82
Packaging exceptions 306
Packaging non bulk None
Packaging bulk None

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable, Limited Quantity
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
ERG Code 10L
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.
Cargo aircraft only Allowed with restrictions.

IMDG

UN number UN1950
UN proper shipping name AEROSOLS, LIMITED QUANTITY
Transport hazard class(es)
Class 2
Subsidiary risk -
Packing group Not applicable.
Environmental hazards
Marine pollutant No.
EmS Not available.
Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Section 15 - Regulatory Information

US federal regulations This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

SARA 304 Emergency release notification

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance

copper (CAS 7440-50-8)

CERCLA Hazardous Substance List (40 CFR 302.4)

copper (CAS 7440-50-8) Listed.

CERCLA Hazardous Substances: Reportable quantity

copper (CAS 7440-50-8) 5000 LBS

Spills or releases resulting in the loss of any ingredient at or above its RQ require immediate notification to the National Response Center (800-424-8802) and to your Local Emergency Planning Committee.

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Section 311/312 Hazard categories
 Immediate Hazard - No
 Delayed Hazard - No
 Fire Hazard - Yes
 Pressure Hazard - Yes
 Reactivity Hazard - No

SARA 302 Extremely hazardous substance No

US state regulations

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

copper (CAS 7440-50-8)
 distillates (petroleum), hydrotreated heavy naphthenic (CAS 64742-52-5)
 liquefied petroleum gas (CAS 68476-86-8)
 residual oils (petroleum), hydrotreated (CAS 64742-57-0)
 talc (not containing asbestos fibers) (CAS 14807-96-6)

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed.

US. Massachusetts RTK - Substance List

calcium carbonate (CAS 1317-65-3)
 copper (CAS 7440-50-8)
 residual oils (petroleum), hydrotreated (CAS 64742-57-0)
 talc (not containing asbestos fibers) (CAS 14807-96-6)

US. New Jersey Worker and Community Right-to-Know Act

calcium carbonate (CAS 1317-65-3)
 talc (not containing asbestos fibers) (CAS 14807-96-6)
 copper (CAS 7440-50-8)

US. Rhode Island RTK

copper (CAS 7440-50-8)

US. Pennsylvania Worker and Community Right-to-Know Law

copper (CAS 7440-50-8)
 calcium carbonate (CAS 1317-65-3)
 residual oils (petroleum), hydrotreated (CAS 64742-57-0)
 talc (not containing asbestos fibers) (CAS 14807-96-6)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

Volatile organic compounds (VOC) regulations

EPA

VOC content (40 CFR 51.100(s)) 28.1 %

Consumer products (40 CFR 59, Subpt. C) Not regulated

State

Consumer products This product is regulated as an Anti-seize Lubricant (aerosol). This product is compliant for use in all 50 states.

VOC content (CA) 28.1 %

VOC content (OTC) 28.1 %

International Inventories

| Country(s) or region | Inventory name | On inventory (yes/no)* |
|-----------------------------|--|-------------------------------|
| Australia | Australian Inventory of Chemical Substances (AICS) | No |
| Canada | Domestic Substances List (DSL) | No |
| Canada | Non-Domestic Substances List (NDSL) | Yes |
| China | Inventory of Existing Chemical Substances in China (IECSC) | No |
| Europe | European Inventory of Existing Commercial Chemical Substances (EINECS) | No |
| Europe | European List of Notified Chemical Substances (ELINCS) | No |
| Japan | Inventory of Existing and New Chemical Substances (ENCS) | No |
| Korea | Existing Chemicals List (ECL) | Yes |
| New Zealand | New Zealand Inventory | No |
| Philippines | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | No |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory | Yes |

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
 A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s)

Section 16 - Other Information

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Further information

Not available.

HMIS® ratings

Health: 2
 Flammability: 3
 Physical hazard: 0
 Personal protection: B

NFPA ratings

Health: 2
 Flammability: 3
 Instability: 0

NFPA ratings

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