

# Safety Data Sheet

## CS-40



# AEROCHEM

### 1. Identification

<b>Product identifier</b>	CS-40
<b>Product code</b>	GRCS40400G60CS, GRCS4017KG, GRCS4055KG, GRCS40180KG
<b>Other means of identification</b>	CS-40, liquid grease format. This SDS sheet is not for the product in aerosol format.
<b>Recommended use of the chemical and restrictions on use</b>	Multipurpose grease, anti-seize, low temperature.
<b>Manufacturer</b>	AEROCHEM Inc. 5977 Trans Canada Highway Pointe-Claire, QC H9R 1C1 Canada  General Information: 1-888-592-5837  <a href="http://www.aerochem.ca">www.aerochem.ca</a> <a href="mailto:info@aerochem.ca">info@aerochem.ca</a>
<b>Emergency phone number</b>	INFOTRAC®: 1-800-535-5053 International call collect: 1-352-323-3500 24 hours/day, 7 days/week

### 2. Hazard identification

<b>Summary</b>	Avoid contact with skin, eyes and clothing. Do not ingest. If medical advice is needed, have this SDS or label at hand. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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#### WHMIS 2015/GHS/OSHA HCS 2012



Serious eye damage/eye irritation (Category 2)  
Skin sensitizer (Category 1)

#### WARNING

H319: Causes serious eye irritation  
H317: May cause an allergic skin reaction  
H316: Causes mild skin irritation  
P261: Avoid breathing vapours, mist and spray.  
P264: Wash skin thoroughly after handling.  
P272: Contaminated work clothing should not be allowed out of the workplace.  
P280: Wear protective gloves, protective clothing and eye protection.  
P302+352: IF ON SKIN: Wash with plenty of water and soap.  
P333+313: If skin irritation or a rash occurs: Get medical advice or attention.  
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P337+313: If eye irritation persists: Get medical advice or attention.  
P362+364: Take off contaminated clothing and wash before reuse.  
P501: Dispose of contents and container to an approved waste disposal plant.

**Other hazards which do not result in classification**

Skin irritation (Category 3).

### 3. Composition/information on ingredients

Common name	CAS	Weight % content
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	45 - 70 %
Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	10 - 30 %
Calcium carbonate	471-34-1	5 - 10 %
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	1 - 5 %
Calcium dodecylbenzenesulfonate	26264-06-2	1 - 5 %
Sulfonic acids, petroleum, calcium salts	61789-86-4	1 - 5 %
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	70024-69-0	1 - 5 %

**Note:** The manufacturer withholds the actual concentration range of the ingredients as a trade secret.

### 4. First-aid measures

<b>Inhalation</b>	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
<b>Skin contact</b>	Flush with water for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
<b>Eye contact</b>	IMMEDIATELY flush with plenty of water. Remove contact lenses if easy to do. Flush with water for at least 15 minutes. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting, unless recommended by medical personnel. If victim is conscious wash out mouth with plenty of water. Never give anything by mouth if victim is unconscious or convulsing. Seek medical attention or contact a Poison Centre immediately.
<b>Other</b>	No information available.
<b>Symptoms</b>	May cause redness and irritation to eyes. May cause dry skin, itching and irritation. May cause an allergic reaction of the skin.
<b>Notes to the physician</b>	Apply a symptomatic and supportive treatment. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemicals, water spray, chemical foam, carbon dioxide (CO <sub>2</sub> ). Do not use a heavy water jet.
<b>Specific hazards arising from the chemical</b>	Non-flammable. May be combustible at high temperature. Emits toxic and irritating fumes under fire conditions.
<b>Special protective equipment</b>	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
<b>Special protective actions for fire-fighters</b>	Use water spray to cool fire-exposed containers. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. Product floating on water can travel to an ignition source and spread the fire. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

## 6. Accidental release measures

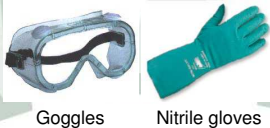
<b>Personal precautions, protective equipment and emergency procedures</b>	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
<b>Environmental precautions</b>	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
<b>Methods and materials for containment and cleaning up</b>	Ventilate the area well. Remove sources of ignition. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) or wipe up or scrape up and place in an appropriate waste disposal container clearly identified. Finish cleaning the contaminated surface by rinsing with soapy water. Dispose via a licensed waste disposal contractor.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Use in well ventilated area. Do not breathe vapours, mists or aerosols. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Avoid contamination with another chemical product. Keep containers tightly closed when not in use. Keep away from heat and open flame. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
<b>Conditions for safe storage, including any incompatibilities</b>	Store tightly closed and in properly labelled containers in a cool, dry and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
<b>Storage temperature</b>	0 to 50 °C (32 to 122 °F)

## 8. Exposure controls/personal protection

<b>Immediately Dangerous to Life or Health</b>	No IDLH value is reported.				
Distillates (petroleum), solvent-refined heavy paraffinic	TWA (8h)	Mist	5 mg/m <sup>3</sup>	ACGIH , OSHA, RSST	
Distillates (petroleum), solvent-dewaxed heavy paraffinic	STEL	Mist	10 mg/m <sup>3</sup>	ON , RSST	
Calcium carbonate	TWA (8h)	Mist	5 mg/m <sup>3</sup>	ACGIH , ON, RSST	
	STEL	Respirable Dust	20 mg/m <sup>3</sup>	BC	
	TWA (8h)	Total Dust	10 mg/m <sup>3</sup>	ACGIH , RSST	
<b>Appropriate engineering controls</b>	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.				
<b>Individual protection measures</b>					
<b>Eye</b>	If there is a risk of contact with eyes, wear chemical splash goggles.				
<b>Hands</b>	Wear nitrile or neoprene gloves. Disposable nitrile gloves can also be used, but discard after single use. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.				
<b>Skin</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. Wear synthetic or a neoprene apron, if necessary, to prevent repeated or prolonged contact				

	with skin.
<b>Respiratory</b>	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with organic vapour cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with organic vapour cartridges and P100 filters.
<b>Feet</b>	Wear rubber boots to clean up a spill.
 Goggles      Nitrile gloves	

## 9. Physical and chemical properties

<b>Physical state</b>	Grease (Liquid)	<b>Flammability</b>	Non-flammable
<b>Colour</b>	Tan	<b>Flammability limits</b>	N/Av.
<b>Odour</b>	Slightly, mineral-oil-like	<b>Flash point</b>	>180°C (356°F)
<b>Odour threshold</b>	N/Av.	<b>Auto-ignition temperature</b>	N/Av.
<b>pH</b>	N/Av.	<b>Sensibility to electrostatic charges</b>	No
<b>Melting point</b>	N/Av.	<b>Sensibility to sparks and/or friction</b>	No
<b>Freezing point</b>	N/Av.	<b>Vapour density</b>	N/Av. (Air = 1)
<b>Boiling point</b>	N/Av.	<b>Relative density</b>	1.2 kg/L (Water = 1)
<b>Solubility</b>	Insoluble in water.	<b>Partition coefficient n-octanol/water</b>	N/Av.
<b>Evaporation rate</b>	< Butyl Acetate	<b>Decomposition temperature</b>	N/Av.
<b>Vapour pressure</b>	N/Av.	<b>Viscosity</b>	112 cSt @ 40°C (104°F)
<b>Percent Volatile</b>	N/Av.	<b>Molecular mass</b>	N/Av.
N/Av.: Not Available    N/Av.: Not Applicable    Und.: Undetermined    N/E: Not Established			

## 10. Stability and reactivity

<b>Reactivity</b>	No information available for this product.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions (including polymerizations)</b>	A dangerous reaction will not occur.
<b>Conditions to avoid</b>	Avoid contact with incompatible materials.
<b>Incompatible materials</b>	Strong bases, strong acids, strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and



perchlorates).

**Hazardous decomposition products**

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information


<b>Numerical measures of toxicity</b>	<p>Distillates (petroleum), solvent-refined heavy paraffinic</p> <p>Distillates (petroleum), solvent-dewaxed heavy paraffinic</p> <p>Calcium carbonate</p> <p>Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts</p> <p>Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts</p> <p>Sulfonic acids, petroleum, calcium salts</p> <p>Calcium dodecylbenzenesulfonate</p>	<p>Ingestion &gt;5000 mg/kg Rat LD50</p> <p>Inhalation &gt;5 mg/l/4h Rat LC50</p> <p>Skin &gt;5000 mg/kg Rabbit LD50</p> <p>Ingestion &gt;5000 mg/kg Rat LD50</p> <p>Inhalation &gt;5 mg/l/4h Rat LC50</p> <p>Skin &gt;5000 mg/kg Rabbit LD50</p> <p>Ingestion 6450 mg/kg Rat LD50</p> <p>Inhalation &gt;3 mg/l/4h Rat LC50</p> <p>Skin &gt;2000 mg/kg Rat LD50</p> <p>Ingestion &gt;16000 mg/kg Rat LD50</p> <p>Inhalation &gt;1.9 mg/kg Rat LC50</p> <p>Skin &gt;5000 mg/kg Rabbit LD50</p> <p>Ingestion &gt;5000 mg/kg Rat LD50</p> <p>Skin &gt;2000 mg/kg Rabbit LD50</p> <p>Ingestion &gt;5000 mg/kg Rat LD50</p> <p>Inhalation &gt;1.9 mg/kg Rat LC50</p> <p>Skin &gt;5000 mg/kg Rabbit LD50</p> <p>Ingestion 1300 mg/kg Rat LD50</p> <p>Skin &gt;2000 mg/kg Rabbit LD50</p>
<b>Likely routes of exposure</b>	Skin, eyes, inhalation, ingestion.	
<b>Delayed, immediate and chronic effects</b>	<p><b>Eye contact</b> May cause redness and irritation to eyes. Eye Irritation, Rabbit: Calcium dodecylbenzenesulfonate (CAS no 26264-06-2) is severely irritating (OEDC 405). Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (CAS no 70024-69-0) is irritating. Sulfonic acids, petroleum, calcium salts (CAS no 61789-86-4) are irritating.</p> <p><b>Skin contact</b> May cause redness and slight irritation of the skin. Skin Irritation, Rabbit : Calcium dodecylbenzenesulfonate (CAS no 26264-06-2) is moderately irritating. Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (CAS no 70024-69-0) is irritating. Sulfonic acids, petroleum, calcium salts (CAS no 61789-86-4) are irritating.</p> <p><b>Inhalation</b> Generally speaking, working cleanly and following basic precautionary measures will greatly minimize the potential for harmful exposure to this product under normal use conditions.</p> <p><b>Ingestion</b> Low degree of acute toxicity. May cause gastrointestinal irritation with nausea and vomiting.</p> <p><b>Respiratory or skin sensitization</b> Benzenesulfonic acid, alkyl derivatives, and sulfonic acids, petroleum are skin sensitizers based on the Beuhler test (guinea pig, OECD Guideline 406). Sulfonic acids, petroleum, calcium salts (CAS no 61789-86-4) have shown equivocal results in human skin sensitization patch test studies. This product is not a respiratory sensitizer.</p> <p><b>IARC/NTP Classification</b> No ingredients listed.</p> <p><b>Carcinogenicity</b> Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</p> <p><b>Mutagenicity</b> Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> <p><b>Reproductive toxicity</b> Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause reproduction effects.</p>	

	<p><b>Specific target organ toxicity - single exposure</b> No target organ is listed.</p> <p><b>Specific target organ toxicity - repeated exposure</b> No target organ is listed.</p>
<b>Interactive effects</b>	No information available.
<b>Other information</b>	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation (aerosol/mist) of the mixture was calculated to be greater than 5 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

## 12. Ecological information

<b>Ecological toxicity</b>	<p>Fish - Pimephales promelas [static] LC50 &gt;100 mg/L; 96h (CAS no 64741-88-4)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 &gt;100 mg/L; 96h (CAS no 61789-86-4)</p> <p>Fish, various LC50 &gt;100 mg/L ; 96h (CAS no 70024-69-0)</p> <p>Fish, various LC50 20 mg/L; 96h (CAS no 26264-06-2)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 2.2 mg/L; 48h (CAS no 26264-06-2)</p>
<b>Persistence</b>	Contains an or many ingredients that may be persistent in aquatic environment.
<b>Degradability</b>	Lubricant base oil attained between 2 to 4% degradation within 28 days and therefore, cannot be considered as ready biodegradable under the conditions of OECD Guideline 301B. The ingredients of calcium alkyl sulphonates salts are not readily biodegradable (<10% in 28 days). Calcium dodecylbenzenesulfonate (CAS no 26264-06-2) should be biodegradable (>70% in 28 days).
<b>Bioaccumulative potential</b>	Lubricant base oil has Log Kow values ranging from about 5 to 25 and Bioconcentration Factor (BCF) between 0.9 and 750000 for the oil mixture. These values indicate a high degree of bioaccumulation. The potential of calcium alkyl sulfonates salts to bioaccumulate is low. Log Kow >6 and Potential for bioconcentration (BCF) of 71 (estimated) for Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts (CAS no 70024-69-0). Potential for bioconcentration (BCF) of 71 (estimated) for Sulfonic acids, petroleum, calcium salts (CAS no 61789-86-4). Log Kow of 6.7 (estimated) for Calcium dodecylbenzenesulfonate (CAS no 26264-06-2).
<b>Mobility in soil</b>	This product is stable in water, and can be mechanically separated from water. Lubricant base oil is likely to have high Koc values (>5000), indicating a high degree of sorption to the organic matter in soils. This value suggests that some components will display low mobility and some will be essentially immobile in soil.
<b>Other adverse effects</b>	This chemical does not deplete the ozone layer.

## 13. Disposal considerations

<p><b>Container</b></p> 	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Non-use oils or waste oils can be reprocessed (recycle) where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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Distillates (petroleum), solvent-dewaxed heavy paraffinic	64742-65-0	X								
Calcium carbonate	471-34-1	X								
Benzenesulfonic acid, C10-16-alkyl derivs., calcium salts	68584-23-6	X								
Calcium dodecylbenzenesulfonate	26264-06-2	X	X						X	
Sulfonic acids, petroleum, calcium salts	61789-86-4	X								
Benzenesulfonic acid, mono-C16-24-alkyl derivs., calcium salts	70024-69-0	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

### California Proposition 65

No ingredients listed.

<b>Other regulations</b>				
	<table border="0"> <tr> <td style="text-align: center;"><b>HMIS</b></td> <td style="text-align: center;"><b>NFPA</b></td> </tr> <tr> <td> </td> <td> </td> </tr> </table>	<b>HMIS</b>	<b>NFPA</b>	
<b>HMIS</b>	<b>NFPA</b>			

## 16. Other information

<b>Date (YYYY-MM-DD)</b>	AEROCHEM Inc. 2020-03-03
<b>Version</b>	03
<b>Other information</b>	<p>REFERENCES:</p> <ul style="list-style-type: none"> <li>- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <a href="https://haz-map.com/">https://haz-map.com/</a></li> <li>- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <a href="http://www.reptox.csst.qc.ca">http://www.reptox.csst.qc.ca</a></li> <li>- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, <a href="http://www.cdc.gov/niosh/npg/npg.html">http://www.cdc.gov/niosh/npg/npg.html</a></li> <li>- Database, Institut National de Recherche et de Sécurité, <a href="http://www.inrs.fr/accueil/produits/bdd.html">http://www.inrs.fr/accueil/produits/bdd.html</a></li> </ul> <p>DATE OF FIRST VERSION OF SDS: 2016-01-29.</p> <p>CHANGES MADE IN THE VERSION 02: sections 2 and 3.</p> <p>DATE OF SECOND VERSION OF SDS: 2019-07-31.</p> <p>CHANGES MADE IN THE VERSION 03: section 1.</p>



ACGIH: American Conference of Governmental Industrial Hygienists  
AIHA: American Industrial Hygiene Association  
HMIS: Hazardous Materials Identification System  
NFPA: National Fire Protection Association  
OSHA: Occupational Safety and Health Administration (USA)  
NIOSH: National Institute for Occupational Safety and Health  
NTP: National Toxicology Program  
RSST: Règlement sur la santé et la sécurité du travail (Québec)  
GHS: Globally Harmonized System  
IARC: International Agency for Research on Cancer  
IDLH: Immediately Dangerous to Life or Health  
STEL: Short Term Exposure Limit (15 min)  
TWA: Time Weighted Averages  
WHMIS: Workplace Hazardous Materials Information System

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