

PRODUCT DATA SHEET

CALCIUM SULPHONATE CS2 GREASE

PRODUCT DESCRIPTION

Calcium Sulphonate CS2 Grease is a heavy duty multipurpose industrial bearing grease. It is specifically designed to perform well under the harshest conditions found in marine environments, steel mills, pulp and paper mills and other similar industries. It is ideally suited to applications where heat, water and extreme loads are encountered.

Calcium Sulphonate CS2 Grease is a technologically advanced grease that has been developed using modified over based calcium sulphonates and mineral oil. It is characterized by exceptional mechanical stability, high dropping point, high load carrying performance, reduced wear, and excellent resistance to water and corrosion. This grease will equal and in many ways outperform other premium, high temperature greases based on lithium complex, aluminium complex and polyurea thickeners. As well as being ideal for high temperature work, it exhibits excellent low temperature performance to temperatures of -20°C.

BENEFITS

Thermal and Mechanical Stability

- Superior mechanical stability versus other thickeners, particularly in the presence of heat and water.
- High dropping point, typically in excess of 280°C.

Load Carrying & Wear Protection

- Excellent EP and AW properties inherent in the thickener.
- Does not require the use of additional additives.
- Extreme load carrying capacity.

Resistance to Water

Excellent resistance to water washout and spray-off.

Corrosion Resistance

- Sulphonates are known and used for their excellent rust prevention properties.
- Will easily outperform all other technologies.

Resistance to Oxidation

• The use of a premium antioxidant and a high quality oil ensures excellent thermal and oxidation stability.

APPLICATIONS

- Mining, steel mills, pulp and paper mills and other similar industries.
- Marine environment.
- Highly loaded conditions in off-road and construction.

Hi-Tec suggests that the equipment manufacturers' recommendations for grade, performance requirements and general operating conditions should be checked prior to use.





PRODUCT DATA SHEET

TYPICAL CHARACTERISTICS

Property Appearance Texture Thickener NLGI Mineral Oil, Viscosity (cSt) @ 40°C Penetration 60 strokes Dropping Point (min °C) 4-Ball Weld (kg) Water Resistance @ 90°C Water Wash Out @ 38°C Flow Pressure @ -20°C Density Temperature range

ASTM D-217 mod ASTM D-7152 ISO 2137 IP 396 ASTM D-2596 DIN 51807:1 ASTM D1264 DIN 51805 mod IP 530

Method

Results Brown Smooth Calcium Sulphonate Complex 2 460 265 – 295 >280 800 1 <1% <1400 mBar 1000 kg/m³ -20°C to +140°C (max. +180°C)

Available in: Bulk, 180 kg, 20 kg and 450g

"Hi-Tec Oil Traders Pty Ltd (Hi-Tec Oils) has endeavoured to ensure that all information, representations and specifications contained in this product data sheet are accurate at the time of publication. This general information should be used in conjunction with appropriate inquiries by users of the product including consultation with the vehicle or equipment manufacturers published information.

It is the responsibility of users of the product to use the product safely. Users should consult the safety data sheets for each product at <u>www.hi-tecoils.com.au</u>. Hi-Tec Oils takes no responsibility for injury or damage if the product is used in an inappropriate or unsafe manner.

Our product warranty and product quality statement can be viewed at www.hi-tecoils.com.au"

Item code: HI7-1025

Effective: June 2022

MR226090/1







SAFETY DATA SHEET

Page 1 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

Product name:

Calcium Sulphonate CS2 Grease

1. COMPANY DETAILS AND PRODUCT IDENTIFICATION

COMPANY:	Hi-Tec Oil Traders Pty Ltd. (ABN 28 053 837 362)
ADDRESS:	PO Box 322 Castle Hill NSW 1765 5 Tarlington Place, Smithfield NSW 2164
TELEPHONE NUMBER:	1300 796 009
FAX NUMBER:	(02) 9604 1611
EMERGENCY TELEPHONE NUMBER:	1300 796 009
PRODUCT NAME:	Calcium Sulphonate CS2 Grease
OTHER NAMES:	Calcium Sulphonate Grease
MANUFACTURER'S PRODUCT CODE:	HI7-1025
USE:	Calcium sulphonate complex grease for automotive and industrial applications.
ADDITIONAL INFORMATION:	Refer to Product Information Sheet for additional information.
OTHER INFORMATION:	Visit our website: <u>www.hi-tecoils.com.au</u> Email: hitecoils@hi-tecoils.com.au

2. HAZARDS IDENTIFICATION

STATEMENT OF HAZARDOUS NATURE:

HAZARDOUS SUBSTANCE NON-DANGEROUS GOODS Hazard classification according to criteria of NOHSC and GHS. Dangerous Goods classification according to the Australian Dangerous Goods.

POISON SCHEDULE:

GHS LABEL ELEMENTS:

Not scheduled

SIGNAL WORD:

WARNING







SAFETY DATA SHEET

Page 2 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

2. HAZARDS IDENTIFICATION (CONT)

<u>GHS HAZARD CLASSIFICATIONS</u> SERIOUS EYE DAMAGE/IRRITATION: SENSITISATION (SKIN):	Category 2A Category 1
HAZARD STATEMENTS:	H319: Causes serious eye irritation. H317: May cause an allergic skin reaction.
PREVENTION STATEMENTS:	P261: Avoid breathing dust.P264: Wash hands thoroughly after handling.P272: Contaminated work clothing should not be allowed out of the workplace.P280: Wear protective gloves/eye protection/face protection.
RESPONSE STATEMENTS:	 P302 + P350: IF ON SKIN: Gently wash with plenty of soap and water. P363: Wash contaminated clothing before reuse. P333 + P313: If skin irritation or rash occurs: Get medical advice/attention. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337 + P313: If eye irritation persists: Get medical advice/attention.
DISPOSAL STATEMENTS:	Dispose of contents/container in accordance with local / regional / national / international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL CHARACTERISTICS:	Grease		
INGREDIENTS:-			
CHEMICAL ENTITY	CAS NO	PROPORTION	
Distillates (petroleum), solvent-dewaxed	64742-65-0	30 - 60%	
heavy paraffinic			
Sulfonic acids, petroleum, calcium salts	61789-86-4	7 - 13%	
Calcium dodecylbenzenesulphonate	26264-06-2	1 - 5%	
Diboron calcium tetraoxide	13701-64-9	1 - 5%	
Ingredients determined to be non-hazardous		To 100%	
-			
4. FIRST AID MEASURES		10 10070	

GENERAL INFORMATION:

You should call the Poisons Information Centre on 13 11 26 from anywhere in Australia (0800 764 766 in New Zealand) if you feel that you may have been poisoned, burned or irritated by this product. Have this SDS with you when you call.





SAFETY DATA SHEET

Page 3 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

4. FIRST AID MEASURES (CONT)

INGESTION:	Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
EYE CONTACT:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
SKIN CONTACT:	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
INHALATION:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
NOTES TO PHYSICIAN:	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. FIRE FIGHTING MEASURES

GENERAL MEASURES:	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
FLAMMABILITY CONDITIONS:	Flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
SUITABLE EXTINGUISHING MEDIA:	Use an extinguishing agent suitable for the surrounding fire.
HAZARDOUS COMBUSTION PRODUCTS:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, sulfur oxides, metal oxide/oxides.





SAFETY DATA SHEET

Page 4 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

5. FIRE FIGHTING MEASURES (CONT)

FIRE FIGHTING:	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
PPE:	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves).
FLASH POINT:	No data available.
EXPLOSION LIMITS:	No data available.
AUTO-IGNITION TEMPERATURE:	No data available.
HAZCHEM CODE:	No data available.

6. ACCIDENTAL RELEASE MEASURES

GENERAL RESPONSE:	Avoid accidents, clean up immediately. May be slippery when spilt. Eliminate all sources of ignition. Increase ventilation. Avoid generating dust. Stop leak if safe to do so. Isolate the danger area. Use clean, non-sparking tools and equipment.
METHODS OF CLEANING UP:	 Small spill : Move containers from spill area. Avoid dust generation. Do not dry sweep. Place spilled material in a designated, labeled waste container. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor. Large spill : Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Dispose of via a licensed waste disposal contractor.
CONTAINMENT:	Stop leak if safe to do so. Isolate the danger area.
ENVIRONMENTAL PRECAUTIONS:	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
EVACUATION CRITERIA:	Evacuate all unnecessary personnel.
PERSONAL PRECAUTIONS:	Personnel involved in the clean up should wear full protective clothing as listed in section 8.





SAFETY DATA SHEET

Page 5 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

7. HANDLING AND STORAGE SAFE HANDLING: Ensure an eye bath and safety shower are available and ready for use. Observe good personal hygiene practices and recommended procedures. Wash thoroughly after handling. Take precautionary measures against static discharges by bonding and grounding equipment. Avoid contact with eyes, skin and clothing. Do not inhale product dust/fumes. SAFE STORAGE: Store in original container protected from direct sunlight in a dry, cool and wellventilated 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. This product is not classified dangerous for transport according to The Australian Code for the Transport of Dangerous Goods By Road and Rail. CONTAINER: Store in original packaging as approved by manufacturer. 8. EXPOSURE CONTROLS / PERSONAL PROTECTION GENERAL: Distillates (petroleum), solvent-dewaxed heavy paraffinic : ACGIH TLV (United States, 3/2015). TWA: 5 mg/m³ 8 hours. Form: Inhalable 5 mg/m³ 8 hours. Form: Inhalable NIOSH REL (United States, 10/2013). TWA: 5 mg/m³ 10 hours. Form: Mist STEL: 10 mg/m³ 15 minutes. Form: Mist OSHA PEL (United States, 2/2013). TWA: 5 mg/m³ 8 hours. **EXPOSURE LIMITS:** No data available. No information available on biological limit values for this product. **BIOLOGICAL LIMITS: ENGINEERING CONTROLS:** A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Adequate ventilation should be provided so that exposure limits are not exceeded.

PERSONAL PROTECTION:

RESPIRATOR: Wear a dust mask where dusts/vapours are generated and engineering controls are inadequate (AS 1715/1716).
EYES: Safety glasses with side shields (AS 1336/1337).
HANDS: Wear rubber or PVC gloves (AS 2161).
CLOTHING: Long-sleeved protective clothing and safety footwear (AS 3765/2210).





SAFETY DATA SHEET

Page 6 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (CONT)

HYGIENE MEASURES:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Grease
COLOUR:	Tan
ODOUR:	Mild. Petroleum Oil
pH:	Not available
VAPOUR PRESSURE:	Not available
RELATIVE VAPOUR PRESSURE:	Not available
BOILING POINT:	Not available
MELTING POINT (°C):	Not available
FREEZING POINT (°C):	Not available
SOLUBILITY:	Insoluble in cold water
SPECIFIC GRAVITY:	Not available
FLASH POINT:	Not available
AUTO-IGNITION TEMPERATURE:	Not available
EVAPORATION RATE:	Not available
BULK DENSITY:	Not available
CORROSION RATE:	Not available
DECOMPOSITION TEMPERATURE:	Not available
DENSITY:	0.96g/cm ³ relative
SPECIFIC HEAT:	Not available







SAFETY DATA SHEET

Page 7 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

9. PHYSICAL AND CHEMICAL PROPERTIES (CONT)

MOLECULAR WEIGHT:	Not available
NET PROPELLAN WEIGHT:	Not available
OCTANOL WATER COEFFICIENT:	Not available
PARTICLE SIZE:	Not available
PARTITION COEFFICIENT:	Not available
SATURATED VAPOUR CONC:	Not available
VAPOUR TEMPERATURE:	Not available
VISCOSITY:	>0.21 cm ² /s (@40°C)
VOLATILE PERCENT:	Not available
VOC VOLUME:	Not available
POTENTIAL FOR DUST EXPLOSION:	Flammable in the presence of static discharge

10. STABILITY AND REACTIVITY

GENERAL:	No specific test data related to reactivity available for this product or its ingredients.
CHEMICAL STABILITY:	The product is stable.
CONDITIONS TO AVOID:	Avoid excessive heat, direct sunlight, generating dust, moisture, static discharges, open flame and high temperatures.
INCOMPATIBLE MATERIALS:	Incompatible with strong oxidising agents, bases, mineral acids and sources of ignition.
HAZARDOUS DECOMPOSITION PRODUCTS:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
HAZARDOUS POLYMERISATION:	Under normal conditions of storage and use, hazardous reactions will not occur.







SAFETY DATA SHEET

Page 8 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

11. TOXICOLOGICAL INFORMATION

GENERAL INFORMATION:	Distillates (petroleum),solvent-dewaxed heavy paraffinic : LD50 Dermal, Rabbit, >5000 mg/kg Sulfonic acids, petroleum, calcium salts : LD50 Oral, Rat, >5000 mg/kg. LD50 Dermal, Rabbit, >5 g/kg Calcium dodecylbenzenesulphonate : LD50 Oral, Rat, >5 g/kg. LD50 Oral, Rat, 1300 mg/kg.
	Routes of entry anticipated: Oral, Dermal, Inhalation. Oral ATE value 65000 mg/kg.
INGESTION:	No known significant effects or critical hazards.
INHALATION:	No known significant effects or critical hazards.
EYE IRRITANT:	Causes serious eye irritation. Adverse symptoms may include the following: pain or irritation, watering, redness.
SKIN IRRITANT:	Causes mild skin irritation. May cause an allergic skin reaction. Adverse symptoms may include the following: irritation, redness.
SENSITISATION:	May cause an allergic skin reaction. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
CARCINOGEN CATEGORY:	No data available.

12. ECOLOGICAL INFORMATION

ECOTOXICITY:	Calcium carbonate- Acute LC50 56000 ppm Fresh water, Fish - Gambusia affinis - Adult, 96 hours Chronic NOEC 61 mg/g Fresh water, Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) 28 days
PERSISTENCE AND DEGRADABILITY:	Not readily biodegradable.
MOBILITY:	No information available on mobility for this product.
ENVIRONMENTAL FATE:	Do NOT let product reach waterways, drains and sewers.
BIOACCUMULATIVE POTENTIAL:	This product is not expected to bioaccumulate through food chains in the environment.
ENVIRONMENTAL IMPACT:	No data available.







SAFETY DATA SHEET

Page 9 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

13. DISPOSAL CONSIDERATIONS

GENERAL INFORMATION:

Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.

DISPOSAL METHODS:

Contact a specialist disposal company or the local waste regulator for advice. Incinerate at an approved site following all local regulations. This material may be suitable for approved landfill. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

14. TRANSPORT INFORMATION

ROAD & RAIL TRANSPORT: ADG REQUIREMENT	Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail.
MARITIME TRANSPORT: IMO/IMDG REQUIREMENT	Not classified as a Dangerous Good according to the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.
AIR TRANSPORT: ICAO/IATA REQUIREMENT	Not classified as a Dangerous Good according to the criteria of the International Maritime Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

15. REGULATORY INFORMATION

POISON SCHEDULE:	Not scheduled.
PACKING & LABELLING:	No special packaging or labelling requirements.
AUSTRALIAN INVENTORY STATUS:	All components are listed or exempted.







SAFETY DATA SHEET

Page 10 of 10 Issue Date: 24 March 2022 Calcium Sulphonate CS2 Grease Version: 5

16. OTHER INFORMATION

CONTACT PERSON/POINT:	General Manager 1300 796 009
	This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.
	If you are an employer it is your duty to tell your employees, and any others that may be affected, of any hazards described in this sheet and of any precautions that should be taken.
	Safety Data Sheets are updated frequently. Please ensure you have a current copy.
LITERATURE REFERENCES:	 * NOHSC: 2011 National Code of Practice for the preparation of Material Safety Data Sheets. * Safework Australia: 2016 Code of Practice for the Preparation of Safety Data Sheets for Hazardous Substances. * NOHSC: 1008 Approved Criteria for Classifying Hazardous Substances. * NOHSC: 1005 List of Designated Hazardous Substances. * NOHSC: 1005 Control of Workplace Hazardous Substances, National Code of Practice. * NOHSC: 2007 Control of Workplace Hazardous Substances, National Code of Practice. * NOHSC: 1003 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, National Exposure Standards. * NOHSC: 3008 Exposure Standards for Atmospheric Contaminants in the Occupational Environment, Guidance Note. * NOHSC: 1015 Storage and Handling of Workplace Dangerous Goods, National Standard. * NOHSC: 2017 Storage and Handling of Workplace Dangerous Goods, National Code of Practice. * SUSDP: Standard for the Uniform Scheduling of Drugs and Poisons * ADG: Australian Dangerous Goods Code
	* MSDS of component materials.
LAST CHANGE:	Supercedes document issued: 13 July 2017. Reason/s for revision: Minor editorial changes.
MR223042/1	



