



# Chevron FM CSC EP

## High performance food machinery grease

Product Data Sheet

### Product description

Chevron FM CSC EP is a high performance food machinery calcium sulphonate complex EP grease, formulated with a pharmaceutical mineral oil base and is zinc-free. It is specifically developed for the food processing and canning industries.

### Customer benefits

- Natural extreme pressure (EP) performance offers durable wear protection and long equipment service life
- Dependable multi-purpose formulation promotes long, reliable grease life and equipment protection
- Reliable corrosion resistance contributes long-life equipment protection and performance
- Formulated to offer efficient pumpability
- Offers robust mechanical stability in the presence of water or when fully submerged

### Applications

- Chevron FM CSC EP food machinery greases are multipurpose lubricants suitable for many types of grease-lubricated machinery located in canneries, beverage bottlers and canners, potato/corn chip processors, candy manufacturers, meat and poultry packers, frozen food processors and other food producers and processors
- NLGI 1 and 2 are preferred for general plant lubrication including applications such as electric motors and wheeled vehicles where NSF-registered H2 lubricants are often used. The NLGI 1 grade will also work well in many centralised automatic lubrication systems
- NLGI 2 is also recommended for those applications where the grease is exposed to high temperatures, steam, and centrifugal action causing throw-off

### Product highlights:

- Natural extreme pressure performance
- Dependable multi-purpose formulation
- Reliable corrosion resistance
- Efficient pumpability
- Water resistance
- Selected specification standards include:
  - Certified Kosher and Pareve
  - DIN
  - ISO
  - NSF (H1)
  - NZFSA
  - US FDA

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Typical applications for Chevron FM CSC EP greases in processing plants include:

- General purpose greasing, electric motor bearings, slides and ways, pump shaft bearings, mobile equipment, automatic lubrication systems and grease gun applications, wheel bearings, grease fittings, grease packed bearings, seamers, conveyor belts, head, tail, and roller bearings, food handling machinery, mechanical linkages

## Approvals, performance and recommendations

### Approvals

- NSF (H1)
- NZFSA approved
- Certified Kosher and Pareve

### Performance

- US Food and Drug Administration(FDA)-21CFR 178.3570, and other sections referenced therein
- DIN 51 502: KP 2 R-30
- ISO 6743-9: ISO-L-XBFIB2

	DIN 51 502	ISO 6743-09	OPERATING TEMPERATURE
<b>Chevron FM CSC EP 1</b>	KP 1 R-30	ISO-L-XCFIB1	-30°C up to 180°C
<b>Chevron FM CSC EP 2</b>	KP 2 R-20	ISO-L-XBFIB2	-20°C up to 180°C with continuous lubrication up to 204°C



# Chevron FM CSC EP

## High performance food machinery grease

### Typical test data

CHEVRON FM CSC EP			
TEST	TEST METHODS	RESULTS	
NLGI Grade	DIN 51 818	1	2
Product Code		230205	230206
Soap type	DIN 51 814	Calcium sulphonate complex	
Soap content, %	-	24.5	27
Colour	Visual	TAN	TAN
Texture	Visual	Smooth, buttery	
Dropping Point, °C	ISO 2176	300	300
Oil type	-	WOP	WOP
Base oil viscosity at 40°C, mm <sup>2</sup> /s	DIN 51 562	100	100
Base oil viscosity at 100°C, mm <sup>2</sup> /s	DIN 51 562	10.8	10.8
Penetration worked, 0.1 mm	ISO 2137	325	280
Penetration worked, 10 <sup>5</sup> str., 0.1mm	ISO 2137	318	285
Copper Corrosion 24h/100°C	DIN 51 811	1	1
Emcor corrosion distilled water	ISO 11007	Pass	Pass
Emcor corrosion 3%NaCl	ISO 11007	Pass	Pass
Water resistance static	DIN 51 807/1	0/90	0/90
Water resistance dynamic, 79°C, %	DIN 51 807/2	0	2.75
Oil Separation	DIN 51 817	0.66	0.13
Four Ball weld load, N	DIN 51 350/4	5000	6200
Four Ball weld load, kgf	ASTM D2596	500	620
Four Ball wear scar, 1min/1000N, mm	ASTM D2266	0.45	0.45
Shell Roll stability test (2h, roomt°)	ASTM D1831	14	5
Shell Roll stability test +10% salt water(2h, roomt°)	ASTM D1831	-11	-8

continued

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CHEVRON FM CSC EP			
TEST	TEST METHODS	RESULTS	
<b>NLGI grade</b>	<b>DIN 51 818</b>	<b>1</b>	<b>2</b>
<b>Product Code</b>		<b>230205</b>	<b>230206</b>
<b>EPDM RM 69, 168hrs/100°C</b>	DIN 53 521		
Change in tensile strength at break, %		-72.4	-73.2
Change in max. elongation, %		-56.7	-57.8
Change in hardness, Shore A		-19	-19
Change in volume, %		111.8	113.7
<b>RE1, 168hrs/100°C</b>	DIN 53 521		
Change in tensile strength at break, %		-10.2	-7.0
Change in max. elongation, %		3.2	11.9
Change in hardness, Shore A		-3	-2
Change in volume, %		0	0.3
<b>NBR1, 168hrs/100°C</b>	DIN 53 521		
Change in tensile strength at break, %		-3.9	-9.1
Change in max. elongation, %		-2.9	-9.7
Change in hardness, Shore A		-4	-3
Change in volume, %		4.9	4.2
<b>NBR 28, 168hrs/100°C</b>	DIN 53 521		
Change in tensile strength at break, %		-0.8	-5.1
Change in max. elongation, %		-14.1	-19.4
Change in hardness, Shore A		-4	-3
Change in volume, %		3.9	3.4
<b>NBR 34, 168hrs/100°C</b>	DIN 53 521		
Change in tensile strength at break, %		0.9	2.0
Change in max. elongation, %		-11.2	-4.5
Change in hardness, Shore A		-3	-2
Change in volume, %		1.5	1.1

For more information, go to [www.chevronlubricants.com](http://www.chevronlubricants.com)

