

SAFETY DATA SHEET

Chemodex Limited - MOS² Dry Film Lubricant 400ml Aerosols

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name Chemodex Limited - MOS² Dry Film Lubricant 400ml Aerosols
Product number 2023

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

Identified uses Lubricant.

1.3. Details of the supplier of the safety data sheet

Supplier Chemodex Limited
 Canal Road
 Worksop
 Nottinghamshire
 S80 2EH
 01909 473301

1.4. Emergency telephone number

Emergency telephone +44 (0) 1909 473 301 (Hours 09:00 - 17:00 Mon to Fri)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Aerosol 1 - H222, H229
Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H336
Environmental hazards Not Classified

Classification (67/548/EEC or 1999/45/EC) F+; R12. Xi; R36. R66, R67

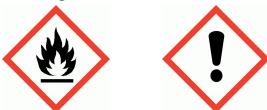
Human health Vapours and spray/mists in high concentrations are narcotic. See Section 11 for additional information on health hazards.

Environmental The product is not expected to be hazardous to the environment.

Physicochemical Containers can burst violently or explode when heated, due to excessive pressure build-up. The product is extremely flammable. Vapours may form explosive mixtures with air.

2.2. Label elements

Pictogram



Signal word Danger

Hazard statements H222 Extremely flammable aerosol.
 H229 Pressurised container: may burst if heated
 H319 Causes serious eye irritation.
 H336 May cause drowsiness or dizziness.

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Precautionary statements	<p>P102 Keep out of reach of children.</p> <p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P211 Do not spray on an open flame or other ignition source.</p> <p>P251 Do not pierce or burn, even after use.</p> <p>P261 Avoid breathing vapour/spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P312 Call a POISON CENTER/doctor if you feel unwell.</p> <p>P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F.</p>
Supplemental label information	EUH066 Repeated exposure may cause skin dryness or cracking.
Contains	ACETONE
Supplementary precautionary statements	<p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P337+P313 If eye irritation persists: Get medical advice/attention.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p> <p>P501 Dispose of contents/container in accordance with national regulations.</p>

2.3. Other hazards

This product does not contain any substances classified as PBT or vPvB.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PETROLEUM GASES, LIQUEFIED	30-60%
CAS number: 68476-85-7	EC number: 270-704-2
Classification	
Flam. Gas 1 - H220	
Press. Gas, Compressed - H280	
ACETONE	30-60%
CAS number: 67-64-1	EC number: 200-662-2
	REACH registration number: 01-2119471330-49-XXXX
Classification	
Flam. Liq. 2 - H225	
Eye Irrit. 2 - H319	
STOT SE 3 - H336	
STOT SE 3 - H336	

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methyl methacrylate	<1%
CAS number: 80-62-6	EC number: 201-297-1
Classification	
Flam. Liq. 2 - H225	
STOT SE 3 - H335	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	
n-butyl methacrylate	<1%
CAS number: 97-88-1	EC number: 202-615-1
Classification	
Flam. Liq. 3 - H226	
Eye Irrit. 2 - H319	
STOT SE 3 - H335	
Skin Irrit. 2 - H315	
Skin Sens. 1 - H317	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. If in doubt, get medical attention promptly.
Ingestion	Rinse mouth thoroughly with water. Remove person to fresh air and keep comfortable for breathing. Get medical attention.
Skin contact	Wash skin thoroughly with soap and water. Get medical attention promptly if symptoms occur after washing.
Eye contact	Remove any contact lenses and open eyelids wide apart. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.
Protection of first aiders	First aid personnel should wear appropriate protective equipment during any rescue.

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

General information	See Section 11 for additional information on health hazards.
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4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor	Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Foam, carbon dioxide or dry powder.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Containers can burst violently or explode when heated, due to excessive pressure build-up.
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5.3. Advice for firefighters

Protective actions during firefighting Use water to keep fire exposed containers cool and disperse vapours. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid inhalation of vapours and contact with skin and eyes. Ensure suitable respiratory protection is worn during removal of spillages in confined areas.

6.2. Environmental precautions

Environmental precautions Avoid discharge into drains.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb in vermiculite, dry sand or earth and place into containers.

6.4. Reference to other sections

Reference to other sections For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Keep away from heat, sparks and open flame. Read and follow manufacturer's recommendations. When sprayed on a naked flame or any incandescent material the aerosol vapours can be ignited. Use suitable respiratory protection if ventilation is inadequate.

Advice on general occupational hygiene Wash promptly with soap and water if skin becomes contaminated.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Do not store near heat sources or expose to high temperatures. Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

PETROLEUM GASES, LIQUEFIED

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1750 mg/m³

Short-term exposure limit (15-minute): WEL 1250 ppm 2180 mg/m³

ACETONE

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

WEL = Workplace Exposure Limit

ACETONE (CAS: 67-64-1)

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DNEL	Workers - Dermal; Long term systemic effects: 186 mg/kg/day Workers - Inhalation; Short term local effects: 2420 mg/m ³ Workers - Inhalation; Long term systemic effects: 1210 mg/m ³
PNEC	- Sediment (Freshwater); 30.4 mg/kg - Sediment (Marinewater); 3.04 mg/kg - Marine water; 1.06 mg/l - Soil; 29.5 mg/kg

8.2. Exposure controls

Eye/face protection	Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible.
Hand protection	No specific hand protection recommended.
Other skin and body protection	Wear suitable protective equipment for prolonged exposure and/or high concentrations of vapours, spray or mist.
Respiratory protection	No specific recommendations. If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Colour	Grey.
Odour	Solvent.
Odour threshold	No information available.
pH	No information available.
Melting point	No information available.
Initial boiling point and range	-41 (-41 TO 56)°C @
Flash point	-40°C CC (Closed cup).
Evaporation rate	No information available.
Evaporation factor	No information available.
Flammability (solid, gas)	No information available.
Upper/lower flammability or explosive limits	Lower flammable/explosive limit: 1.8 % Upper flammable/explosive limit: 13.0 %
Vapour pressure	No information available.
Vapour density	No information available.
Relative density	0.653
Solubility(ies)	Insoluble in water.
Partition coefficient	No information available.
Auto-ignition temperature	465°C
Decomposition Temperature	No information available.
Viscosity	No information available.
Explosive properties	No information available.

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Oxidising properties No information available.

9.2. Other information

Other information None.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity No test data specifically related to reactivity available for this product or its ingredients.

10.2. Chemical stability

Stability The product may not be stable under some conditions of storage or use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions None known.

10.4. Conditions to avoid

Conditions to avoid Avoid heat, flames and other sources of ignition. Avoid exposing aerosol containers to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid None known.

10.6. Hazardous decomposition products

Hazardous decomposition products None at ambient temperatures.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Inhalation May cause drowsiness or dizziness. Vapours in high concentrations are narcotic. Vapours may cause headache, fatigue, dizziness and nausea.

Skin contact Repeated exposure may cause skin dryness or cracking.

Eye contact Causes serious eye irritation.

Acute and chronic health hazards No known chronic or acute health risks.

Route of entry Inhalation Skin and/or eye contact

Toxicological information on ingredients.

ACETONE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 5,800.0

Species Rat

ATE oral (mg/kg) 5,800.0

Acute toxicity - dermal

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Acute toxicity dermal (LD₅₀ 7,800.0 mg/kg)

Species Rabbit

ATE dermal (mg/kg) 7,800.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ vapours mg/l) 21.0

Species Rat

ATE inhalation (vapours mg/l) 21.0

SECTION 12: Ecological Information

12.1. Toxicity

Ecological information on ingredients.

ACETONE

Acute toxicity - fish EC₅₀, 96 hours: 8300 mg/l, Lepomis macrochirus (Bluegill)

Acute toxicity - aquatic invertebrates EC₅₀, : 8800 mg/l, Daphnia magna

12.2. Persistence and degradability

Persistence and degradability No data available.

12.3. Bioaccumulative potential

Partition coefficient No information available.

12.4. Mobility in soil

Mobility No data available

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dispose of waste product or used containers in accordance with local regulations

Disposal methods Containers should be thoroughly emptied before disposal because of the risk of an explosion. Do not pierce or burn, even after use.

SECTION 14: Transport information

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

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UN No. (ICAO) 1950

UN No. (ADN) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) AEROSOLS

Proper shipping name (IMDG) AEROSOLS

Proper shipping name (ICAO) AEROSOLS

Proper shipping name (ADN) AEROSOLS

14.3. Transport hazard class(es)

ADR/RID class 2.1

ADR/RID classification code 5F

ADR/RID label 2.1

IMDG class 2.1

ICAO class/division 2.1

ADN class 2.1

Transport labels



14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

14.6. Special precautions for user

EmS F-D, S-U

ADR transport category 2

Tunnel restriction code (D)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

Not applicable.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations The Aerosol Dispensers Regulations 2009 (SI 2009 No. 2824).

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EU legislation Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Revision date	09/10/2015
Revision	1
SDS number	6040
Hazard statements in full	H220 Extremely flammable gas. H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H229 Pressurised container: may burst if heated H280 Contains gas under pressure; may explode if heated. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.