Printing date 21.11.2015

Revision: 21.11.2015

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

· 1.1 Product identifier

- Trade name: Gem Synthetic High Temp 2
- · Registration number Mixture
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC24 Lubricants, greases, release products
- · Application of the substance / the mixture LUBRICATING GREASE

· 1.3 Details of the supplier of the safety data sheet

• Manufacturer/Supplier: Gem Oils Limited Regaskin Cavan Ireland

Tel: +353 (0) 49 4331077 Fax: +353 (0) 49 4368329 e-mail: productsafety@gemoils.ie

· Further information obtainable from: Product safety department.

• 1.4 Emergency telephone number: Tel: +353 87 6867268

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008
- The product is not classified according to the CLP regulation.
- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 Void
- · Hazard pictograms Void
- · Signal word Void
- · Hazard statements Void
- · 2.3 Other hazards
- \cdot Results of PBT and vPvB assessment
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures

· Description: A blend of synthetic base oils and multifunctional additives with thickener system.

• **Dangerous components:** Zinc alkyldithiophosphate

Aquatic Chronic 2, H411; 🗘 Eye Irrit. 2, H319

• Additional information: For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

- · General information: No special measures required.
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- · After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

Check for and remove any contact lenses.

Rinse opened eye for several minutes under running water. Then consult a doctor.

(Contd. on page 2)

>1.5%

Printing date 21.11.2015

Revision: 21.11.2015

(Contd. of page 1)

Trade name: Gem Synthetic High Temp 2

· After swallowing:

Wash mouth out with water

Do not induce vomiting; call for medical help immediately.

If vomiting occurs spontaneously, keep head below hips to prevent aspiration.

- \cdot 4.2 Most important symptoms and effects, both acute and delayed
- No further relevant information available.

 \cdot Information for doctor:

High pressure injection injuries of mineral and synthetic oils through the skin require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

• **4.3 Indication of any immediate medical attention and special treatment needed** No further relevant information available.

SECTION 5: Firefighting measures

· 5.1 Extinguishing media

 \cdot Suitable extinguishing agents:

CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

- · For safety reasons unsuitable extinguishing agents: Water with full jet
- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

Do not inhale explosion gases or combustion gases.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures** Particular danger of slipping on leaked/spilled product. Ensure adequate ventilation
- 6.2 Environmental precautions: Do not allow to penetrate the ground/soil. Do not allow to enter sewers/ surface or ground water.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- Send for recovery or disposal in suitable receptacles.
- 6.4 Reference to other sections
 No dangerous substances are released.
 See Section 7 for information on safe handling.
 See Section 8 for information on personal protection equipment.
 See Section 13 for disposal information.

SECTION 7: Handling and storage

- \cdot 7.1 Precautions for safe handling
- Prevent formation of aerosols.
- Ensure good ventilation/exhaustion at the workplace.
- Information about fire and explosion protection: No special measures required.

(Contd. on page 3)

Printing date 21.11.2015

Revision: 21.11.2015

Trade name: Gem Synthetic High Temp 2

(Contd. of page 2)

- · 7.2 Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Prevent any seepage into the ground.
- Information about storage in one common storage facility: Store away from oxidising agents.
- · Further information about storage conditions:
- Store in a bunded area.
- Store in cool, dry conditions in well sealed receptacles.
- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

• Additional information about design of technical facilities: No further data; see item 7.

- · 8.1 Control parameters
- Ingredients with limit values that require monitoring at the workplace:
- The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:
- Do not carry product impregnated cleaning cloths in trouser pockets.

Avoid close or long term contact with the skin.

Do not eat, drink, smoke or sniff while working.

Avoid contact with the eyes.

Do not inhale gases / fumes / aerosols.

Wash hands before breaks and at the end of work.

· Respiratory protection: Not necessary if room is well-ventilated.

· Protection of hands:

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation • Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection: Safety glasses
- · Body protection:
- Oil resistant protective clothing

Body protection must be chosen depending on product properties, activity and possible exposure.

9.1 Information on basic physical and chemical properties General Information		
Appearance:		
Form:	Pasty	
Colour:	Brown	
Odour:	Mild	
Odour threshold:	Not determined.	
pH-value:	Not applicable.	

Printing date 21.11.2015

Revision: 21.11.2015

Trade name: Gem Synthetic High Temp 2

	(Contd. of page	
 Change in condition Melting point/Melting range: 	Undetermined.	
Boiling point/Boiling range:	Undetermined.	
	> 100 °C	
· Flash point:	>100 C	
· Flammability (solid, gaseous):	Not determined.	
· Ignition temperature:	>250 °C	
· Decomposition temperature:	Not determined.	
· Self-igniting:	Product is not self-igniting.	
· Danger of explosion:	Product does not present an explosion hazard.	
· Explosion limits:		
Lower:	Not determined.	
Upper:	Not determined.	
· Vapour pressure:	Not applicable.	
· Density at 20 °C:	0.8 g/cm ³	
· Relative density	Not determined.	
· Vapour density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
water:	Insoluble.	
\cdot Partition coefficient (n-octanol/wa	ter): Not determined.	
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
 9.2 Other information 	No further relevant information available.	

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

10.2 Chemical stability

· Thermal decomposition / conditions to be avoided:

- No decomposition if used and stored according to specifications.
- 10.3 Possibility of hazardous reactions No dangerous reactions known.
- \cdot 10.4 Conditions to avoid No further relevant information available.
- 10.5 Incompatible materials: Strong oxidising agents.
- · 10.6 Hazardous decomposition products: Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects

- Acute toxicity Based on available data, the classification criteria are not met.
- · Primary irritant effect:

· Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation Based on available data, the classification criteria are not met.

· Respiratory or skin sensitisation Based on available data, the classification criteria are not met.

· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)

· Germ cell mutagenicity Based on available data, the classification criteria are not met.

· Carcinogenicity Based on available data, the classification criteria are not met.

 \cdot Reproductive toxicity Based on available data, the classification criteria are not met.

· STOT-single exposure Based on available data, the classification criteria are not met.

(Contd. on page 5)

- IE -

Printing date 21.11.2015

Revision: 21.11.2015

Trade name: Gem Synthetic High Temp 2

- · STOT-repeated exposure Based on available data, the classification criteria are not met.
- Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- · 12.2 Persistence and degradability Inherently biodegradable
- 12.3 Bioaccumulative potential Product is not expected to bioaccumulate.
- 12.4 Mobility in soil No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. • 12.5 Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Recommended Hierarchy of Controls:

- Minimise waste;
- Reuse if not contaminated;
- Recycle, if possible; or
- Safe disposal (if all else fails).
- Contact waste processors for recycling information.
- Delivery of waste oil to offically authorised collectors only.

Used, degraded or contaminated product may be classified as hazardous waste. Anyone classifying hazardous waste and determining its fate must be qualified in accordance with state and international legislation.

· European waste catalogue

Waste key numbers in accordance with the European Waste Catalogue (EWC) are origin-referred defined. Since this product is used in several industries, no waste key can be provided by the supplier. The waste key number should be determined in arrangement with your waste disposal partner or the responsible authority.

- · Uncleaned packaging:
- · Recommendation:

Container remains hazardous when empty. Continue to observe all precuations.

Containers, even those that are "empty," may contain residues that can develop flammable vapours upon heating. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers.

SECTION 14: Transport information		
· 14.1 UN-Number · ADR, ADN, IMDG, IATA	Void	
 14.2 UN proper shipping name ADR, ADN, IMDG, IATA 	Void	
· 14.3 Transport hazard class(es)		
· ADR, ADN, IMDG, IATA · Class	Void	
		(Contd. on page 6)

(Contd. of page 4)

Printing date 21.11.2015

Revision: 21.11.2015

Trade name: Gem Synthetic High Temp 2

	(Contd. of page 5)	
· 14.4 Packing group · ADR, IMDG, IATA	Void	
 14.5 Environmental hazards: Marine pollutant: 	No	
· 14.6 Special precautions for user	Not applicable.	
• 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.		
· Transport/Additional information:	Not dangerous according to the above specifications.	
· UN "Model Regulation":	Void	

SECTION 15: Regulatory information

• 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.

• 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H319 Causes serious eye irritation.

H411 Toxic to aquatic life with long lasting effects.

- · Department issuing MSDS: Product safety department.
- · Contact:
- · Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

Aquatic Chronic 2: Hazardous to the aquatic environment - Chronic Hazard, Category 2