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

· 1.1 Product identifier

· Trade name: G-Cool 79

- · Registration number Mixture
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC25 Metal working fluids
- · Application of the substance / the mixture Metal working
- · Uses advised against

Any use carrying a risk of direct contact with eyes/skin where workers are exposed without adequate personal protective equipment (PPE).

Any use involving aerosol formation or vapour or dust release in excess of the assigned workplace exposure limits where workers are exposed without suitable respiratory protective equipment (RPE).

Processes involving extreme heat use advised against.

Processes involving the use of incompatible substances - refer to section 10.

The product is intended exclusively for industrial and professional use.

- · 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



Skin Irrit. 2 H315 Causes skin irritation.

Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

- · Hazard pictograms GHS07
- · Signal word Warning
- · Hazard-determining components of labelling:

2-Aminoethanol

1,2-benzisothiazol-3(2H)-one

3-Iodo-2-propynylbutylcarbamate

· Hazard statements

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

· Precautionary statements

P260 Do not breathe mist/vapours/spray. P273 Avoid release to the environment.

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P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

- · 2.3 Other hazards
- · 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 highly refined mineral oils with multifunctional additives.

· Dangerous compone	ents:	
	Fatty acid soaps Skin Irrit. 2, H315; Eye Irrit. 2, H319	>2.5-≤10%
CAS: 141-43-5 EINECS: 205-483-3	2-Aminoethanol Skin Corr. 1B, H314; Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; STOT SE 3, H335	>2.5-≤10%
CAS: 112-34-5 EINECS: 203-961-6	2-(2-Butoxyethoxy)ethanol © Eye Irrit. 2, H319	>2.5-≤10%
	Carbomonocyclic acid anhydride, polymers with polyethylene glycol, succinic anhydride monoalkenyl derivs. and succinic anhydride monopolyisobutylene derivs., esters with polyethylene glycol monoalkyl ethers Aquatic Chronic 4, H413	
CAS: 68526-86-3 EINECS: 271-235-6	ALCOHOLS C11-C14-ISO-, C13-RICH Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Skin Irrit. 2, H315	≤2.5%
CAS: 55406-53-6 EINECS: 259-627-5	3-Iodo-2-propynylbutylcarbamate Acute Tox. 3, H331; STOT RE 1, H372; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	≤2.5%
CAS: 2372-82-9 EINECS: 219-145-8	N-(3-aminopropyl)-N-dodecylpropane-1,3-diamine Acute Tox. 3, H301; STOT RE 2, H373; Skin Corr. 1A, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410	≤2.5%
CAS: 2634-33-5 EINECS: 220-120-9	1,2-benzisothiazol-3(2H)-one Eye Dam. 1, H318; Aquatic Acute 1, H400; Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤2.5%

[·] Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air and to be sure call for a doctor.
- · After skin contact:

DO NOT DELAY!

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

· After eye contact:

DO NOT DELAY!

Check for and remove any contact lenses.

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Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· After swallowing:

Wash mouth out with water

Drink plenty of water and provide fresh air. Call for a doctor immediately.

Do not induce vomiting; call for medical help immediately.

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

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

No further relevant information available.

· Information for doctor:

Treat symptomatically and supportively.

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
- · Suitable extinguishing agents:

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

- 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.

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

· 6.2 Environmental precautions:

Do not allow to penetrate the ground/soil.

Do not allow product to reach sewage system or any water course in the undiluted form.

· 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

· 6.4 Reference to other sections

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

· 7.1 Precautions for safe handling

Avoid splashes or spray in enclosed areas.

Prevent formation of aerosols.

Ensure good ventilation/exhaustion at the workplace.

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Avoid direct contact (skin/eye contact, ingestion and/or inhalation of fume/mist/dust) with the product in the undiluted form.

- · Information about fire and explosion protection: No special measures required.
- · 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:

Protect from frost.

Store in cool, dry conditions in well sealed receptacles.

Store in a bunded area.

Protect from heat and direct sunlight.

· 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:

MINERAL OIL highly & severely refined (inhalable)

TLV Short-term value: 5 ppm

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Take note of assigned Workplace Exposure Limits.

Do not carry product impregnated cleaning cloths in trouser pockets.

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

Keep away from foodstuffs, beverages and feed.

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

· Respiratory protection:

Use suitable respiratory protective device in case of insufficient ventilation.

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

If respiratory protection is required, institute a complete respiratory protection program including selection, fit testing, training, maintenance and inspection.

· 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

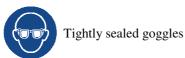
· Material of gloves

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:



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· Body protection:

Oil resistant protective clothing

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

SECTION 9: Physical and chemical properties

· 9.1 Information on	hasic i	nhysical	and	chemical	properties
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· General Information

· Appearance:

Form: Fluid
Colour: Dark brown

Odour: Mineral-oil-like
Odour threshold: Not determined.

• **pH-value** (**50 g/l**) at **20** °C: 9.6

· Change in condition

Melting point/freezing point: Undetermined. Initial boiling point and boiling range: Undetermined.

· Flash point: >100 °C

· Flammability (solid, gas): Not applicable.

• **Decomposition temperature:** Not determined.

· Auto-ignition temperature: Product is not self-igniting.

• Explosive properties: Product does not present an explosion hazard.

· Explosion limits:

Lower: Not determined.

Upper: Not determined.

• Vapour pressure at 20 °C: 23 hPa

Density at 20 °C:
 Relative density
 Vapour density
 Not determined.
 Not determined.

• Evaporation rate Not determined.

 \cdot Solubility in / Miscibility with

· Partition coefficient: n-octanol/water: Not determined.

· Viscosity:

water:

Dynamic: Not determined. **Kinematic:** Not determined.

• 9.2 Other information NOTE: The physical data presented above are typical values and

Emulsifiable.

should not be construed as a specification.

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.
- 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: Strong oxidising agents.

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· 10.6 Hazardous decomposition products:

Carbon monoxide and carbon dioxide Sulphur oxides (SOx) Nitrogen oxides (NOx)

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

Causes skin irritation.

· Serious eye damage/irritation

Causes serious eye irritation.

· Respiratory or skin sensitisation

May cause an allergic skin reaction.

· Additional toxicological information:

Current and releavnt legislation requires exposure to metalworking fluids by inhalation, ingestion or skin contact to be prevented where reasonably practicable, or failing that, adequately controlled.

Exposure to metalworking fluids can cause irritation of the skin, dermatitis and breathing problems following repeated exposure. Additionally, if not controlled properly, fluid systems that contain water-mixes can become highly contaminated with microorganisms. These organisms, their metabolites and their remains can affect human health if they should enter the breathing zones of workers and other persons leading to chronic respiratory diseases. Such contamination of fluids and associated machinery and pipework must be appropriately monitored and controlled. Direct means of measuring such contamination must be used in conjunction with other relevant checks on fluid quality. Also, systems containing water-mixes must be appropriately cleaned on a regular basis.

- · 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.
- · 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.
- · 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.
- · Ecotoxical effects:
- · Remark: Harmful to fish
- · 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. Harmful to aquatic organisms

- · 12.5 Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- · vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.

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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.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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:

Disposal must be made according to official regulations.

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

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

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

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			
· 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			

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SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3, 55
- · National regulations:

Class	Share in %
NK	4.0

· 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

H301 Toxic if swallowed.

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H331 Toxic if inhaled.

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H372 Causes damage to organs through prolonged or repeated exposure.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

· Department issuing SDS: Product safety department.

· 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

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 3: Acute toxicity – Category 3

Skin Corr. 1A: Skin corrosion/irritation - Category 1A

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation - Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

STOT SE 3: Specific target organ toxicity (single exposure) - Category 3

STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard - Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard - Category 1

 $Aquatic\ Chronic\ 3:\ Hazardous\ to\ the\ aquatic\ environment\ -\ long-term\ aquatic\ hazard\ -\ Category\ 3$

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4