Shell Gadus S2 V220 00

Version 2.5

Revision Date 12.01.2022

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product name	: Shell Gadus S2 V220 (
Product code	:	001D8449		

Manufacturer or supplier's details					
Manufacturer/Supplier	: LLC "Shell Neft" Russian Federation, 125196, Moscow, 9 Lesnaya street, floor 3				
Telephone Telefax	: (+7) 4952586900 : (+7) 4952586920				
Emergency telephone number	: +44 (0)1235 239670 (This telephone number is available 24 hours per day, 7 days per week)				
Recommended use of the c	hemical and restrictions on use				

-		
Recommended use	:	Automotive and industrial grease.

2. HAZARDS IDENTIFICATION

Based on available data this substance / mixture does not meet the classification criteria.

Label elements

Safety data sheet available on request.

Hazard pictograms Signal word	 No Hazard Symbol required No signal word
Hazard statements	 PHYSICAL HAZARDS: Not classified as a physical hazard according to CLP criteria. HEALTH HAZARDS: Not classified as a health hazard under CLP criteria. ENVIRONMENTAL HAZARDS: Not classified as environmental hazard according to CLP criteria.
Precautionary statements	 Prevention: No precautionary phrases. Response: No precautionary phrases. Storage: No precautionary phrases.

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022
	Disposal: No precautionary phrases.	
Sensitising components	 Contains alkyl thiadiazole. Contains Bismuth Naphthenate. Contains naphthenic acid. Contains Zinc Naphthenate May produce an allergic reaction. 	

Other hazards

Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis. Used grease may contain harmful impurities. High-pressure injection under the skin may cause serious damage including local necrosis. Not classified as flammable but will burn.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture	:	Mixture
Chemical nature	:	A lubricating grease containing highly-refined mineral oils and additives. The highly refined mineral oil contains <3% (w/w) DMSO- extract, according to IP346. Classification based on DMSO extract content < 3% (Regulation (EC) 1272/2008, Annex VI, Part 3, Note L).

Chemical name	CAS-No.	Classification	Concentration
Chemical hame			
	EC-No.	(REGULATION	(% w/w)
	Registration	(EC) No	
	number	1272/2008)	
Bismuth Naphthenate	85736-59-0	Skin Sens. 1B;	0,1 - 0,99
		H317	
		Eye Irrit. 2; H319	
Naphthenic acid	1338-24-5	Skin Irrit. 2; H315	0,1 - 0,99
		Skin Sens. 1;	
		H317	
		Eye Irrit. 2; H319	
Zinc naphthenate	12001-85-3	Skin Sens. 1B;	0,1 - 0,99
		H317	
		Eye Irrit. 2; H319	
		Aquatic Chronic 2;	
		H411	
Alkyl thiadiazole	13539-13-4	Skin Irrit. 2; H315	0 - < 0,09
	10000-10-4		0 - < 0,09
		Skin Sens. 1A;	
		H317	
		Acute Tox. 4;	
		H332	
		Aquatic Chronic 4;	
		H413	

Hazardous components

Shell Gadus S2 V220 00

Version 2.5

Revision Date 12.01.2022

Print Date 13.01.2022

For explanation of abbreviations see section 16.

Other information

Refer to Chapter 8 for Occupational Exposure Guidelines.

4. FIRST-AID MEASURES

If inhaled	:	No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.	
In case of skin contact	:	Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention.	
		When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.	
In case of eye contact	:	Flush eye with copious quantities of water. Remove contact lenses, if present and easy to do. Continue rinsing. If persistent irritation occurs, obtain medical attention.	
If swallowed	:	In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.	
Most important symptoms and effects, both acute and delayed	:	Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.	
		Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection.	
Protection of first-aiders	:	When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.	
Notes to physician	:	Treat symptomatically.	
		High pressure injection injuries 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	

Shell Gadus S2 V220 00

Version 2.5

Revision Date 12.01.2022

Print Date 13.01.2022

foreign material should be performed under general anaesthetics, and wide exploration is essential.

5. FIRE-FIGHTING MEASURES

Flammable properties		
Flash point	:	/ Not applicable
Ignition temperature	:	> 320 °C / 608 °F
Upper explosion limit	:	Typical 10 %(V)
Lower explosion limit	:	Typical 1 %(V)
Flammability (solid, gas)	:	Data not available
Suitable extinguishing media	:	Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	:	Do not use water in a jet.
Specific hazards during firefighting	:	Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide may be evolved if incomplete combustion occurs. Unidentified organic and inorganic compounds.
Specific extinguishing methods	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Further information	:	Flammable solid.
Special protective equipment for firefighters	:	Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and	: Avoid contact with skin and eyes.
emergency procedures	· Lles apprendiate containment to quoid environmental
Environmental precautions	: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains,

Version 2.5		Revision Date 12.01.2022	Print Date 13.01.2022
		ditches or rivers by using sand, earth barriers.	n, or other appropriate
Methods and materials for containment and cleaning up	:	Prevent from spreading or entering in rivers by using sand, earth, or other	
Additional advice	:	For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.	
7. HANDLING AND STORAGE			
General Precautions	:	Use local exhaust ventilation if there vapours, mists or aerosols. Use the information in this data shee assessment of local circumstances t appropriate controls for safe handling this material.	et as input to a risk o help determine
Advice on safe handling	:	Avoid prolonged or repeated contact Avoid inhaling vapour and/or mists. When handling product in drums, sa worn and proper handling equipmen Properly dispose of any contaminate materials in order to prevent fires.	fety footwear should be t should be used.
Avoidance of contact	:	Strong oxidising agents.	
Storage			
Other data	:	Keep container tightly closed and in place. Use properly labeled and closable co	
		Store at ambient temperature.	
Packaging material	:	Suitable material: For containers or of steel or high density polyethylene. Unsuitable material: PVC.	container linings, use mild
Container Advice	:	Polyethylene containers should not a temperatures because of possible ris	

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Data Source
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Shell Gadus S2 V220 00

Version 2.5Revision Date 12.01.2022Print Date 13.01.2022Oil mist, mineralNot AssignedTWA
(inhalable
fraction)5 mg/m3US. ACGIH
Threshold
Limit Values

Biological occupational exposure limits

No biological limit allocated.

Monitoring Methods

Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Validated exposure measurement methods should be applied by a competent person and samples analysed by an accredited laboratory.

Examples of sources of recommended exposure measurement methods are given below or contact the supplier. Further national methods may be available.

National Institute of Occupational Safety and Health (NIOSH), USA: Manual of Analytical Methods http://www.cdc.gov/niosh/

Occupational Safety and Health Administration (OSHA), USA: Sampling and Analytical Methods http://www.osha.gov/

Health and Safety Executive (HSE), UK: Methods for the Determination of Hazardous Substances http://www.hse.gov.uk/

Institut für Arbeitsschutz Deutschen Gesetzlichen Unfallversicherung (IFA), Germany http://www.dguv.de/inhalt/index.jsp

L'Institut National de Recherche et de Securité, (INRS), France http://www.inrs.fr/accueil

Engineering measures :	The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated. General Information: Define procedures for safe handling and maintenance of controls. Educate and train workers in the hazards and control measures relevant to normal activities associated with this product. Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g. personal protective equipment, local exhaust ventilation. Drain down system prior to equipment break-in or maintenance. Retain drain downs in sealed storage pending disposal or subsequent recycle. Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

sion 2.5	Revision Date 12.01.2022	Print Date 13.01.202
	Due to the product's semi-solid mists and dusts is unlikely to oc	
Personal protective equipm	ent	
Protective measures		
Personal protective equipmer PPE suppliers.	nt (PPE) should meet recommended	national standards. Check wi
Respiratory protection	 No respiratory protection is ordiconditions of use. In accordance with good industiprecautions should be taken to If engineering controls do not miconcentrations to a level which health, select respiratory protectives pecific conditions of use and miconceck with respiratory protectives where air-filtering respirators and appropriate combination of mass Select a filter suitable for the co and vapours and particles [Type (149°F)]. 	rial hygiene practices, avoid breathing of material. naintain airborne is adequate to protect worker ction equipment suitable for the neeting relevant legislation. re equipment suppliers. re suitable, select an sk and filter. ombination of organic gases
Hand protection Remarks	: Where hand contact with the pr gloves approved to relevant sta US: F739) made from the follow suitable chemical protection. PN gloves Suitability and durability usage, e.g. frequency and dura resistance of glove material, de from glove suppliers. Contamin- replaced. Personal hygiene is a care. Gloves must only be worn gloves, hands should be washe Application of a non-perfumed r	Indards (e.g. Europe: EN374, ving materials may provide /C, neoprene or nitrile rubber of a glove is dependent on tion of contact, chemical xterity. Always seek advice ated gloves should be to key element of effective han on clean hands. After using ad and dried thoroughly.
	For continuous contact we reco breakthrough time of more than for > 480 minutes where suitabl short-term/splash protection we recognize that suitable gloves of may not be available and in this time maybe acceptable so long and replacement regimes are for a good predictor of glove resistant dependent on the exact compose Glove thickness should be typic depending on the glove make a	a 240 minutes with preference le gloves can be identified. For e recommend the same but offering this level of protection is case a lower breakthrough as appropriate maintenance blowed. Glove thickness is no ance to a chemical as it is sition of the glove material. cally greater than 0.35 mm
Eye protection	: If material is handled such that protective eyewear is recomme	
Skin and body protection	: Skin protection is not ordinarily	required beyond standard

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022
	work clothes. It is good practice to wear chemical re	sistant gloves.
Thermal hazards	: Not applicable	
Environmental exposure cont	rols	
General advice	 Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Section 6. If necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour. 	

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	:	Semi-solid at ambient temperature.
Colour	:	brown
Odour	:	Slight hydrocarbon
Odour Threshold	:	Data not available
рН	:	Not applicable
Drop point	:	>= 165 °C / >= 329 °F Method: Unspecified
Melting / freezing point		Not applicable
Initial boiling point and boiling range	:	Data not available
Flash point	:	Not applicable
Evaporation rate	:	Data not available
Flammability (solid, gas)	:	Data not available
Upper explosion limit	:	Typical 10 %(V)
Lower explosion limit	:	Typical 1 %(V)
Vapour pressure	:	< 0,5 Pa (20 °C / 68 °F) estimated value(s)
Relative vapour density	:	> 1estimated value(s)
Relative density	:	1,000 (15 °C / 59 °F)
Density	:	1.000 kg/m3 (15,0 °C / 59,0 °F) Method: Unspecified

Version 2.5

Shell Gadus S2 V220 00

Revision Date 12.01.2022 Print Date 13.01.2022

Solubility(ies)	
Water solubility	: negligible
Solubility in other solvents	: Data not available
Partition coefficient: n- octanol/water	: log Pow: > 6 (based on information on similar products)
Auto-ignition temperature	: > 320 °C / 608 °F
Decomposition temperature	: Data not available
Viscosity	
Viscosity, dynamic	: Data not available
Viscosity, kinematic	: Not applicable
Explosive properties	: Classification Code: Not classified
Oxidizing properties	: Data not available
Conductivity	: This material is not expected to be a static accumulator.

10. STABILITY AND REACTIVITY

Reactivity	: The product does not pose any further reactivity hazards in addition to those listed in the following sub-paragraph.
Chemical stability	: Stable.
Possibility of hazardous reactions	: Reacts with strong oxidising agents.
Conditions to avoid	: Extremes of temperature and direct sunlight.
Incompatible materials	: Strong oxidising agents.
Hazardous decomposition products	: No decomposition if stored and applied as directed.

11. TOXICOLOGICAL INFORMATION

Basis for assessment	:	Information given is based on data on the components and the toxicology of similar products.Unless indicated otherwise, the data presented is representative of the product as a whole, rather than for individual component(s).
Information on likely routes of exposure	:	Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022
Acute toxicity		
Product:		
Acute oral toxicity	: LD50 rat: > 5.000 mg/kg Remarks: Low toxicity: Based on available data, the class	ification criteria are not met.
Acute inhalation toxicity	: Remarks: Based on available data are not met.	, the classification criteria
Acute dermal toxicity	: LD50 Rabbit: > 5.000 mg/kg Remarks: Low toxicity: Based on available data, the class	ification criteria are not met.

Skin corrosion/irritation

Product:

Remarks: Slightly irritating to skin., Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis., Based on available data, the classification criteria are not met.

Serious eye damage/eye irritation

Product:

Remarks: Slightly irritating to the eye., Based on available data, the classification criteria are not met.

Respiratory or skin sensitisation

Product:

Remarks: Not a skin sensitiser. Based on available data, the classification criteria are not met.

Components:

Naphthenic acid:

Remarks: May cause an allergic skin reaction in sensitive individuals.

Germ cell mutagenicity

Product:

Remarks: Non mutagenic, Based on available data, the classification criteria are not met.

Carcinogenicity

Product:

Remarks: Not a carcinogen., Based on available data, the classification criteria are not met.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skinpainting studies., Highly refined mineral oils are not classified as carcinogenic by the

Shell Gadus S2 V220 00

Version 2.5

Revision Date 12.01.2022

Print Date 13.01.2022

International Agency for Research on Cancer (IARC).

Material	GHS/CLP Carcinogenicity Classification
Highly refined mineral oil	No carcinogenicity classification.

Reproductive toxicity

Product:

Remarks: Not a developmental toxicant., Does not impair fertility., Based on available data, the classification criteria are not met.

STOT - single exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

STOT - repeated exposure

Product:

Remarks: Based on available data, the classification criteria are not met.

Aspiration toxicity

Product:

Not an aspiration hazard.

Further information

Product:

Remarks: Used grease may contain harmful impurities that have accumulated during use. The concentration of such harmful impurities will depend on use and they may present risks to health and the environment on disposal., ALL used grease should be handled with caution and skin contact avoided as far as possible.

Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Remarks: Slightly irritating to respiratory system.

12. ECOLOGICAL INFORMATION

Basis for assessment	 Ecotoxicological data have not been determined specifically for this product. Information given is based on a knowledge of the components

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022
	and the ecotoxicology of similar p Unless indicated otherwise, the d representative of the product as a individual component(s).(LL/EL/II nominal amount of product requir extract).	lata presented is a whole, rather than for _50 expressed as the
Ecotoxicity		
Product:		
Toxicity to fish (Acute toxicity)	: Remarks: LL/EL/IL50 > 100 mg/I Practically non toxic: Based on available data, the clas	sification criteria are not met.
Toxicity to crustacean (Acute toxicity)	: Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the clas	sification criteria are not met.
Toxicity to algae/aquatic plants (Acute toxicity)	: Remarks: LL/EL/IL50 > 100 mg/l Practically non toxic: Based on available data, the clas	sification criteria are not met.
Toxicity to fish (Chronic toxicity)	: Remarks: Based on available dat are not met.	ta, the classification criteria
Toxicity to crustacean (Chronic toxicity)	: Remarks: Based on available dat are not met.	ta, the classification criteria
Toxicity to microorganisms (Acute toxicity)	: Remarks: Based on available dat are not met.	ta, the classification criteria
Persistence and degradability		
Product:		
Biodegradability	: Remarks: Not readily biodegrada inherently biodegradable, but cor persist in the environment.	
Bioaccumulative potential		
Product:		
Bioaccumulation	: Remarks: Contains components bioaccumulate.	with the potential to
Partition coefficient: n- octanol/water	: log Pow: > 6Remarks: (based on products)	information on similar
Mobility in soil		
Product:		
Mobility	: Remarks: Semi-solid under most it enters soil, it will adsorb to soil	

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022
	mobile. Remarks: Floats on water.	
Other adverse effects		
no data available <u>Product:</u>		
Additional ecological information	 Does not have ozone depletion potential, photochemical ozone creation potential or global warming potential., Product is a mixture of non-volatile components, which will not be released to air in any significant quantities under normal conditions of use. Poorly soluble mixture., Causes physical fouling of aquatic organisms. Mineral oil does not cause chronic toxicity to aquatic organisms at concentrations less than 1 mg/l. 	

13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues	:	Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Waste product should not be allowed to contaminate soil or ground water, or be disposed of into the environment. Do not dispose into the environment, in drains or in water courses Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.
		MARPOL - see International Convention for the Prevention of Pollution from Ships (MARPOL 73/78) which provides technical aspects at controlling pollutions from ships.
Contaminated packaging	:	Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand. Disposal should be in accordance with applicable regional, national, and local laws and regulations.
Local legislation Remarks	:	Disposal should be in accordance with applicable regional, national, and local laws and regulations.

Version 2.5

Print Date 13.01.2022

14. TRANSPORT INFORMATION

International Regulations

ADR Not regulated as a dangerous good ADN Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied. MARPOL Annex 1 rules apply for bulk shipments by sea.

Special precautions for user

Remarks

: Special Precautions: Refer to Section 7, Handling & Storage, for special precautions which a user needs to be aware of or needs to comply with in connection with transport.

15. REGULATORY INFORMATION

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

The regulatory information is not intended to be comprehensive. Other regulations may apply to this material.

Other international regulations

The components of this product are reported in the following inventories:

REACH	:	Not all components listed.
TSCA	:	All components listed.

16. OTHER INFORMATION

Full text of H-Statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H411	Toxic to aquatic life with long lasting effects.
H413	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Version 2.5	Revision Date 12.01.2022	Print Date 13.01.2022				
Acute Tox. Aquatic Chronic Eye Irrit. Skin Irrit. Skin Sens.	Acute toxicity Long-term (chronic) aquatic hazard Eye irritation Skin irritation Skin sensitisation					
Abbreviations and Acro	nyms : The standard abbreviations and a document can be looked up in re scientific dictionaries) and/or web	ference literature (e.g.				
SDS Regulation	safety requirements." 3. GOST 12.1.005-88 "Gene the working zone area". 4. GN 2.1.5.1315-03 "Reser permissible concentration".	ostance in the working zone nful agents.Classification and eral hygiene requirements to voir water maximum ous goods. Classification and rules and dangerous goods ure. hical product safety data				

Further information

Other information	:	A vertical bar () in the left margin indicates an amendment
		from the previous version.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.