

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

Product identifier

Name of product

Polfett / (Terminal Grease)

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

! Recommended intended purpose(s)

See "Description of Identified uses".

Details of the supplier of the safety data sheet

Manufacturer/distributor

Gessert &amp; Sohn

Siemensstr. 17, 40721 Hilden

Phone +49 2103 51681, Fax +49 2103 51682

E-Mail info@hanseline.de

Emergency telephone number

Emergency advice

GIZ

Phone 0551-19240

**SECTION 2: Hazards identification**

Classification of the substance or mixture

Label elements

Labelling according to 67/548/EEC or 1999/45/EC

Remarks for labelling

The product does not require a hazard warning label in accordance with EC directives/German regulations on dangerous substances.

Other hazards

**SECTION 3: Composition/ information on ingredients**

Description

Vaseline: pastous mixture of aliphatic hydrocarbons.

**SECTION 4: First aid measures**

Description of first aid measures

General information

Spillages make surfaces slippery.

In case of inhalation

In case of symptoms arising from inhalation of product fumes, mists or vapour: Remove casualty to a quiet and well ventilated place if safe to do so.

Obtain medical assistance if breathing remains difficult.

If casualty is unconscious and not breathing: Ensure that there is no obstruction to breathing and give artificial respiration by trained personnel.

If necessary, give external cardiac massage and obtain medical advice.

If casualty is unconscious and breathing, place in the recovery position. Administer oxygen if necessary.

Inhalation is unlikely because of the low vapour pressure of the substance at ambient temperature.

Symptoms: none expected at ambient temperature. Inhalation of fumes or oil mists produced at high temperatures may cause irritation of the respiratory tract.

In case of skin contact

Remove contaminated clothing, contaminated footwear and dispose of safely.

Seek medical attention if skin irritation, swelling or redness develops and persists.

Do not put ice on the burn. Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them.

For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be avoided.

Seek medical attention in all cases of serious burns.

Wash affected area with soap and water.

May cause burn in case of contact with product at high temperature.

Symptoms: dry skin, irritation in case of repeated or prolonged exposure.

In case of eye contact

If hot product is splashed into the eye, it should be cooled down immediately to dissipate heat, under cold running water for at least 5 minutes.

Immediately obtain specialist medical assessment and treatment for the casualty.

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing.

If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

Symptoms: slight irritation. May cause burn in case of contact with product at high temperature.

In case of ingestion

Do not give anything by mouth to an unconscious person.

Do not induce vomiting. Ask for medical advice.

Symptoms: few or no symptoms expected. If any, nausea and diarrhoea might occur.

Most important symptoms and effects, both acute and delayed Physician's information / possible dangers

Individuals with pre-existing lung disorders may have increased susceptibility of the effects of exposure.

When using high-pressure equipment, injection of product can occur.

Indication of any immediate medical attention and special treatment needed Treatment (Advice to doctor)

Monitor breathing and pulse rate. Treatment should be in general symptomatic to relieve any effects.

**SECTION 5: Firefighting measures****Extinguishing media****Suitable extinguishing media**

Foam (trained personnel only).

Water fog (trained personnel only).

Dry chemical powder.

Carbon dioxide

Other inert gases (subject to regulations).

Sand or earth.

**Extinguishing media which must not be used for safety reasons**

Do not use direct water jets on the burning product; they could cause splattering and spread the fire.

Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

**Special hazards arising from the substance or mixture**

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide + unidentified organic and inorganic compounds.

**Advice for firefighters****Special protective equipment for fire-fighters**

In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Small spillages: Normal antistatic working clothes are usually adequate.

Large spillages: full body suit of chemically resistant and thermal resistant material should be used.

Gloves made of PVA are not water-resistant, and are not suitable for emergency use.

Work gloves (preferably gauntlets) providing adequate chemical resistance.

Work helmet. Antistatic non-skid safety shoes or boots, if necessary heat-resistant.

Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated.

If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

**Respiratory protection:**

A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure.

**Environmental precautions**

Product in molten form: Prevent product from entering sewers, rivers or other bodies of water. Solidified product may clog drains and sewers.

If necessary dike the product with dry earth, sand or similar non-combustible materials. Let molten material cool naturally.

**Methods and material for containment and cleaning up**

In case of spillage in the water, the product will cool down rapidly and become solid.

Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.

Contain product with floating barriers or other equipment. Collect the product by skimming or other suitable mechanical means.

Except in case of small spillages: The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.

Collect solidified product with suitable means. (e.g. shovels).

When inside buildings or confined spaces, ensure adequate ventilation. In case of solid product (e.g. flakes), avoid the generation and spreading of dust.

The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal.

Keep non-involved personnel away from the area of spillage. Alert emergency personnel.

Stop or contain leak at the source if this possible without risk

Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares).

If required, notify relevant authorities according to all applicable regulations.

**Additional Information**

Recommended measures are based on the most likely spillage scenarios for this material.

Local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions.

For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

**Reference to other sections****SECTION 7: Handling and storage****Precautions for safe handling****Advice on safe handling**

Obtain special instructions before use.

Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed.

Avoid contact with the hot product.

Avoid release to the environment.

Avoid breathing dust/fume/vapours.

Avoid splash filling of bulk volumes when handling hot liquid product.

Prevent the risk of slipping.

Use and store only outdoors or in a well-ventilated area.

Use adequate personal protective equipment as required.

For more information regarding protective equipment and operational conditions see Exposure scenarios. These risk management measures represent a worst case.

Avoid contact with skin. Precautions should be taken to avoid skin burns when handling hot product.

For a non-classified substance proportionate information may be found in the Safety Data Sheet.

**Advice on protection against fire and explosion**

Keep away from sources of ignition - No smoking

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product.

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Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.

Recommended materials for containers, or container linings use mild steel, stainless steel.

Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use.

Compatibility should be checked with the manufacturer.

Protect drains from spills and prevent entry of molten material, since this may result in blockage on cooling.

Keep containers tightly closed and properly labelled.

Advice on storage compatibility

Store separately from oxidising agents.

Further information on storage conditions

Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.

Storage group 11

Fire class B

Specific end use(s)

Recommendation(s) for intended use

Ensure that proper housekeeping measures are in place.

Do not eat, drink or smoke when using this product.

Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets.

Keep away from food and beverages.

Wash the hands thoroughly after handling.

Change contaminated clothes at the end of working shift.

## SECTION 8: Exposure controls/personal protection

Control parameters

Additional advice

USA (ACGIH recommended): TLV value for wax mist: 2 mg/m<sup>3</sup>.

Monitoring procedures should be chosen according to the indications set by national authorities or labour contracts.

In absence of such indications, direct exposure to fumes/dust can be assessed through active air sampling of personal breathing zone (e.g. NIOSH method 5042, UK HSE MDHS 14/3).

Exposure controls

Respiratory protection

Respiratory equipment in case of nebulosity or aerosol: Use a mask with a filter type A2, A2/P2 or ABEK.

If necessary, approved respiratory protection equipment shall be used when handling hot product in confined spaces: enclosed face mask with cartridge/filter type "A" or self-contained breathing apparatus (SCBA).

Approved respiratory protection equipment shall be used when handling product in confined spaces:

full-face mask with particulate filter(s) giving a sufficient protection factor for the dust level present.

If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used.

Hand protection

Use safety gloves of following materials: NBR (nitrile) / neopren / viton (permeationslevel 5 - 6), Cat. II according to norm EN 388. Hot/molten

product: Heat resistant gloves with long cuffs, or gauntlets. Product at ambient temperature (dust): Wear suitable gloves tested to EN374.

Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

Eye protection

Hot/molten product:

If splashing is likely, full head and face protection (protective shield and/or safety goggles) should be used. Product at ambient temperature (dust): safety goggles.

Skin protection

Oil-resistant and hardly inflammable protective clothing.

Hot/molten product:

Wear protective clothing for operations with hot material:

heat resistant coveralls (with trousers legs over boots and sleeves over cuffs of gloves), heat resistant heavy duty antiskid boots (e. g. leather).

Product at ambient temperature (dust): Long-sleeved coveralls, work boots.

Coveralls should be changed at the end of the work shift and cleaned as necessary to avoid transfer of product to clothes or underwear.

For loading/unloading operations: wear safety helmet, if necessary integrated full face visor. In case of hot/molten product: with integrated full face visor.

General protective measures

Do not inhale vapours.

Avoid contact with eyes and skin

It is recommended to use safety clothing, safety gloves and safety goggles/safe screen.

Avoid direct contact with hot material.

Hygiene measures

Clean skin thoroughly after working.

Cloths contaminated with product should not be kept in trouser pockets.

At work do not eat, drink, smoke or take drugs.

Keep away from food and drink.

Use of personal protective equipment must be consistent with good occupational hygiene practices.

Additional advice on system design

Material handled at elevated temperature may cause thermal burns by contact with molten product.

Waxes may give off irritant/flammable vapours if heated close to their boiling points.

Although these are unlikely to present a significant health hazard, to avoid respiratory tract irritation inhalation exposure should be kept to a minimum by observing good work practice and ensuring good ventilation around work areas.

Storage and handling temperatures should be kept as low as feasible to minimize fume production.

Minimise exposure to fumes. Where hot product is handled in confined spaces, effective local ventilation must be provided.

Do not enter empty storage tanks until measurements of available oxygen have been carried out.

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**SECTION 9: Physical and chemical properties**

Information on basic physical and chemical properties

Form	Colour	Odour
Solid	brownish	almost odourless

Important health, safety and environmental information

	Value	Temperature at	Method	Remark
boiling range	300 - 732 °C			
solidifying point	ca. 55 °C		DIN/ISO 2207	
Flash point	> 150 °C		DIN/ISO 2592	
Vapour pressure	< 0,1 hPa	20 °C	calculated	
Density	ca. 820 kg/m3	80 °C	DIN 51757	
Solubility in water				insoluble
Viscosity kinematic	ca. 7,6 mm2/s	100 °C	DIN 51562	
Other information	The values provided may fluctuate within customary limits.			

**SECTION 10: Stability and reactivity**

Reactivity

Chemical stability

Possibility of hazardous reactions

Conditions to avoid

Excessive heating above the maximum recommended handling and storage temperature may cause degradation of the substance and evolution of irritant vapours and fumes.

Incompatible materials

Materials to avoid

Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.

A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass.

Sensitivity to heat, friction or shock cannot be assessed in advance.

Hazardous decomposition products

Combustion (incomplete) will likely generate oxides of carbon, sulphur and nitrogen, as well as additional undetermined organic compounds of the same elements.

None under normal conditions at ambient temperatures.

Additional information

This substance is stable under all ordinary circumstances at ambient temperatures, and if released into the environment.

**SECTION 11: Toxicological information**

Information on toxicological effects

Acute toxicity/Irritability/Sensitization

	Value/Validation	Species	Method	Remark
LD50 acute oral	> 5000 mg/kg	rat	OECD 401	Based on key study test data.
LD50 acute dermal	> 2000 mg/kg	rabbit	OECD 402	Based on key study test data.
Irritability skin	non-irritant	rabbit	Equivalent to OECD 404.	Based on key study test data.
Irritability eye	non-irritant	rabbit eye	Equivalent to OECD 405	Based on key study test data.
Skin sensitization	non-sensitizing	Guinea pig	OECD 406	Based on key study test data.

Subacute Toxicity - Carcinogenicity

	Value	Species	Method	Validation
Subacute Toxicity			Equivalent to OECD 410.	Rabbit dermal NOAEL > 1000 mg/kg bw/day
Subchronic Toxicity	Short-term repeated dose toxicity study (28 days)	rat (male / female)	Equivalent to OECD 411	NOAEL > 2000 mg/kg bw/day
Mutagenicity	Sub-chronic toxicity study (90-day).		Equivalent to OECD 471.	Negative.
	In vitro gene mutation study in bacteria.			
	Value	Species	Method	Validation
Reproduction Toxicity	NOAEL >= 1000 mg/kg Oral exposure		OECD 421	Negative.
Carcinogenicity			Equivalent to OECD 451	Negative.
	Carcinogenicity study			

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**SECTION 12: Ecological information**

## Toxicity

## Ecotoxicological effects

	Value	Species	Method	Validation
Fish	LL50 > 100 mg/l (96 h)	Pimephales promelas	OECD 203	Based on key studies.
Daphnia	EL50 > 10000 mg/l (48 h)	Daphnia magna	OECD 202	Based on key study test data.
Algae	NOEL 100 mg/l	Pseudokirchnerella subcapitata	OECD 201	Based on key study test data.

## Persistence and degradability

## Physico-chemical

## Degradability

Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

Biological 31 % (28 d)

OECD 301 F

inherently biodegradable

degradability Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

## Bioaccumulative potential

## Mobility in soil

## Results of PBT and vPvB assessment

## Other adverse effects

## General regulation

Do not allow uncontrolled leakage of product into the environment.

**SECTION 13: Disposal considerations**

## Waste treatment methods

## Waste code No. Name of waste

05 01 99	wastes not otherwise specified
12 01 12*	spent waxes and fats
13 08 99*	wastes not otherwise specified
16 03 06	organic wastes other than those mentioned in 16 03 05

Wastes marked with an asterisk are considered to be hazardous waste pursuant to Directive 91/689/EEC on hazardous waste.

## Recommendations for the product

Surplus (unused) or off-spec substance can be recovered or re-conditioned (according to specific characteristics and composition), or can be disposed of as waste.

Disposal can be carried out directly, or by delivery to qualified waste handlers. Contain and dispose of waste according to local regulations.

This substance can be burned or incinerated, subject to national/local authorizations, relevant contamination limits, safety regulations and air quality legislation.

These codes can be given only as a suggestion, according to the original composition of the product, and its intended (foreseeable) use(s).

The final user has the responsibility for the attribution of the most suitable code, according to the actual use(s) of the material, contaminations or alterations.

Other national or local legislation may require additional identification or other measures for this product, may also limit or exclude the use of generic (n.o.s.) codes.

## Recommendations for packaging

Disposal of emptied containers: Contact the original supplier or deliver to a qualified disposal organization.

Do not cut, weld, bore, burn or incinerate emptied containers, unless they have been cleaned and declared safe.

Empty containers may contain combustible product residues.

Do not re-use emptied, unclean containers for other purposes.

## General information

In the absence of relevant alterations to the material or presence of contaminants, disposal of this substance as surplus (unused) or off-spec material, or waste resulting from the foreseeable use(s), does not present a specific hazard, or require special handling measures other than those indicated in Sect 7.

**! SECTION 14: Transport information****! Land and inland navigation transport ADR/RID**

UN 3257 HEATED LIQUID SUBSTANCE, N.A.G., 9, III, (D)

Only applies for temperatures higher than 100°C.

**Marine transport IMDG**

Only applies for temperatures higher than 100°C.

**Air transport ICAO/IATA-DGR**

Liquids transported at temperatures of 100°C or higher are prohibited on freight and passenger flights.

**! Transport/further information**

The product is not classified as a hazardous good if the transport temperature lies below 100°C.

As some products are usually solid or semi-solid at room temperature, they can be transported at temperatures of 100°C and higher (above their pour point or melting point).

**Special precautions for user**

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

**! SECTION 15: Regulatory information**

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

National regulations

Water hazard class 1

Classification was ascertained as per " Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS), Addendum 2".

Technical instruction air remarks

5.2.5. Organic substances

Decree for case of interference/ remarks Accident regulation, appendix I: not specified.

Chemical Safety Assessment

**SECTION 16: Other information**

Further information

Above information corresponds to our present knowledge and experience. It is not a guarantee that no errors or incomplete data may be contained.

Sources of key data used

DGMK report 400-1 , 400-2 , 400-7 Concawe-Report " Health aspects of lubricants " 1/1983

Description of Identified uses (Use Descriptor System)

Product Group: Petrolatum

Identified Use	Sector	SU	PROC	ERC	PC
Lubricants (High environmental release)	Consumer	21	NA	8a, 8d	1, 6, 24, 31
Lubricants (Low environmental release)	Consumer	21	NA	9a, 9b	1, 6, 24, 31
Other Consumer Uses	Consumer	21	NA	8a, 8d	28, 39
Use as a fuel	Consumer	21	NA	9a, 9b	13
Use in Agrochemicals	Consumer	21	NA	8a, 8d	12, 22, 27
Uses in Coatings	Consumer	21	NA	8a, 8d	1, 4, 5, 9a, 9b, 9c, 10, 15, 18, 23, 24, 31, 34
Distribution of substance	Industrial	3	1, 2, 3, 4, 8a, 8b, 9, 15	1, 2, 3, 4, 5, 6a, 6b, 6c, 6d, 7	
Formulation & (re)packing of substances and mixtures	Industrial	3, 10	1, 2, 3, 4, 5, 8a, 8b, 9, 14, 15	2	
Functional Fluids	Industrial	3	1, 2, 3, 4, 8a, 8b, 9	7	
Lubricants	Industrial	3	1, 2, 3, 4, 7, 8a, 8b, 9, 10, 13, 17, 18	4, 7	
Manufacture of substance	Industrial	3, 8, 9	1, 2, 3, 4, 8a, 8b, 15	1, 4	
Rubber production and Processing	Industrial	3,10,11	1, 2, 3, 4, 5, 6, 7, 8a, 8b, 9, 13, 14, 15, 21	1, 4, 6d	
Use as a fuel	Industrial	3	1, 2, 3, 8a, 8b, 16	7	
Use as binders and release agents	Industrial	3	1, 2, 3, 4, 6, 7, 8b, 10, 13, 14	4	
Use in laboratories	Industrial	3	10, 15 2, 4		
Uses in Coatings	Industrial	3	1, 2, 3, 4, 5, 7, 8a,8b,10,13,15	4	
Functional Fluids	Professional	22	1, 2, 3, 8a, 9, 20	9a, 9b	
Lubricants (High environmental release)	Professional	22	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 20	8a, 8d	
Lubricants (Low environmental release)	Professional	22	1, 2, 3, 4, 8a, 8b, 9, 10, 11, 13, 17, 18, 20	9a, 9b	
Use as a fuel	Professional	22	1, 2, 3, 8a, 8b, 16	9a, 9b	
Use as binders and release agents	Professional	22	1, 2, 3, 4, 6, 8a, 8b, 10, 11, 14	8a, 8d	
Use in Agrochemicals	Professional	22	1, 2, 4, 8a, 8b, 11, 13	8a, 8d	
Use in laboratories	Professional	22	10, 15	8a	
Uses in Coatings	Professional	22	1, 2, 3, 4, 5, 8a, 8b, 10, 11, 13, 15, 19	8a, 8d	