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

1.1 Product identifier

Trade name : BECKER LUBE S 32

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

Use of the Substance/Mixture : Lubricant

Recommended restrictions on use : None known.

1.3 Details of the supplier of the safety data sheet

Supplier : **Gebr. Becker GmbH**
Hölker Feld 29-31
D-42279 Wuppertal

Telephone : (+49) 0202 697-0
Telefax : (+49) 0202 666-0855
Email Contact for Safety Data Sheet : If you have any enquiries about the content of this SDS please email info@becker-international.com

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Long-term (chronic) aquatic hazard, Category 3	H412: Harmful to aquatic life with long lasting effects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

Hazard statements : H412 Harmful to aquatic life with long lasting effects.

Precautionary statements :

Prevention:

P273 Avoid release to the environment.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Additional Labelling

EUH208 Contains N-1-naphthylaniline. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Components

Chemical name	CAS-No. EC-No. Index-No. Registration number	Classification	Concentration (% w/w)
N-1-naphthylaniline	90-30-2 201-983-0 01-2119488704-27-xxxx	Acute Tox. 4; H302 Skin Sens. 1B; H317 STOT RE 2; H373 Aquatic Acute 1; H400 Aquatic Chronic 1; H410 M-Factor (Acute aquatic toxicity): 1 M-Factor (Chronic aquatic toxicity): 1	>= 0.25 - < 1

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice	:	No hazards which require special first aid measures.
If inhaled	:	Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.
In case of skin contact	:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water.
In case of eye contact	:	Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	:	Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms	:	None known.

4.3 Indication of any immediate medical attention and special treatment needed

Treatment	:	For specialist advice physicians should contact the Poisons Information Service.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire-fighting	:	Burning produces noxious and toxic fumes.

5.3 Advice for firefighters

Special protective equipment for firefighters	:	In the event of fire, wear self-contained breathing apparatus.
Further information	:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions	:	Wear suitable protective equipment.

6.2 Environmental precautions

Environmental precautions	:	If the product contaminates rivers and lakes or drains inform respective authorities.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Wipe up with absorbent material (e.g. cloth, fleece). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advice on safe handling	:	For personal protection see section 8. Dispose of rinse water in accordance with local and national regulations.
Advice on protection against fire and explosion	:	Normal measures for preventive fire protection.
Hygiene measures	:	Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of work-day.
Dust explosion class	:	No data available

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers	:	Keep container tightly closed in a dry and well-ventilated place. Store at room temperature.
Storage period	:	5 y
Further information on storage stability	:	Keep in a dry place.

7.3 Specific end use(s)

Specific use(s)	:	Raw material for industry

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health effects	Value
N-1-naphthylaniline	Workers	Inhalation	Long-term systemic effects	0.18 mg/m3
	Workers	Inhalation	Acute systemic effects	44 mg/m3
	Workers	Dermal	Long-term systemic effects	0.05 mg/kg
	Workers	Dermal	Acute systemic effects	6.67 mg/kg
	General exposures	Inhalation	Long-term systemic effects	0.044 mg/m3
	General exposures	Inhalation	Acute systemic effects	33 mg/m3
	General exposures	Dermal	Long-term systemic effects	0.03 mg/kg
	General exposures	Dermal	Long-term systemic effects	3.33 mg/kg
	General exposures	Ingestion	Long-term systemic effects	0.03 mg/kg
	General exposures	Ingestion	Acute systemic effects	8 mg/kg

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
N-1-naphthylaniline	Fresh water	0.0002 mg/l
	Marine water	0.00002 mg/l
	Fresh water sediment	0.0344 mg/kg
	Marine sediment	0.00344 mg/kg
	Soil	0.0068 mg/kg
	STP	100 mg/l

8.2 Exposure controls

Personal protective equipment

Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles

Hand protection
Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves The selected protective gloves have to satisfy the specifications of Regulation (EU) 2016/425 and the standard EN 374 derived from it.
Before removing gloves clean them with soap and water.

Skin and body protection : Impervious clothing
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Respiratory protection	:	Respirator with a vapour filter (EN 141)

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	:	oily
Colour	:	light yellow
Odour	:	ester-like
Odour Threshold	:	Not relevant
pH	:	Not applicable
Pour point	:	-49 °C
Boiling point/boiling range	:	No data available
Flash point	:	242 °C Method: ASTM D 92
Evaporation rate	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	0.919 (15 °C)
Density	:	0.924 g/cm3 (15 °C) Method: ASTM D 1298
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available

Viscosity

Viscosity, dynamic	:	4.5 - 30.0 mPa.s (40 - 100 °C) Method: ASTM D 445
Viscosity, kinematic	:	28.5 mm2/s (40 °C) Method: ASTM D 445

9.2 Other information

Self-Accelerating decomposition temperature (SADT)	:	GLP: No information available.
Flammability (liquids)	:	No data available
Oxidizing potential	:	No information available.
Dust explosion class	:	No data available
Metal corrosion rate	:	Not corrosive to metals

SECTION 10: Stability and reactivity

10.1 Reactivity

No decomposition if used as directed.

10.2 Chemical stability

No decomposition if stored normally.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	No decomposition if used as directed.

10.4 Conditions to avoid

Conditions to avoid	:	Contamination

10.5 Incompatible materials

Materials to avoid	:	Contamination

10.6 Hazardous decomposition products

Hazardous decomposition products	:	No decomposition if stored normally.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity	:	Remarks: Not classified due to lack of data.

Acute inhalation toxicity	:	Remarks: Not classified due to lack of data.
Acute dermal toxicity	:	Remarks: Not classified due to lack of data.

Components:

N-1-naphthylaniline:

Acute oral toxicity	:	LD50 (Rat): 1,625 mg/kg
Acute dermal toxicity	:	LD50 Dermal (Rabbit): > 5,000 mg/kg

Skin corrosion/irritation

Product:

Remarks	:	According to the classification criteria of the European Union, the product is not considered as being a skin irritant.

Components:

N-1-naphthylaniline:

Species	:	Rabbit
Method	:	Draize Test
Result	:	No skin irritation

Serious eye damage/eye irritation

Product:

Remarks	:	According to the classification criteria of the European Union, the product is not considered as being an eye irritant.

Components:

N-1-naphthylaniline:

Species	:	Rabbit
Method	:	OECD Test Guideline 405
Result	:	No eye irritation

Respiratory or skin sensitisation

Components:

N-1-naphthylaniline:

Test Type	:	Maximisation Test
Species	:	Guinea pig
Result	:	Probability or evidence of low to moderate skin sensitisation rate in humans

Germ cell mutagenicity

Product:

Germ cell mutagenicity- Assessment	:	Not classified due to lack of data.

Components:

N-1-naphthylaniline:

Genotoxicity in vitro	:	Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative Test Type: Chinese Hamster Ovary (CHO) Metabolic activation: with and without metabolic activation Result: negative
Genotoxicity in vivo	:	Test Type: in vivo assay Species: Mouse (male) Result: negative
Germ cell mutagenicity- Assessment	:	Animal testing did not show any mutagenic effects., Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Product:

Carcinogenicity - Assessment	:	Not classified due to lack of data.

Components:

N-1-naphthylaniline:

Carcinogenicity - Assessment	:	Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Reproductive toxicity - Assessment	:	Not classified due to lack of data.

STOT - single exposure

Product:

Assessment	:	Not classified due to lack of data.

STOT - repeated exposure

Product:

Assessment	:	Not classified due to lack of data.

Components:

N-1-naphthylaniline:

Exposure routes	:	Oral
Target Organs	:	Liver, Kidney
Assessment	:	May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks	:	No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available

Components:

N-1-naphthylaniline:

Toxicity to fish	:	LC50 (Oncorhynchus mykiss (rainbow trout)): 0.44 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes
Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia magna (Water flea)): 0.68 mg/l Exposure time: 48 h Test Type: semi-static test Analytical monitoring: yes
M-Factor (Acute aquatic toxicity)	:	1
Toxicity to microorganisms	:	EC50 (Protozoa): 2 mg/l Exposure time: 48 h EC50 (Bacteria): > 10,000 mg/l Exposure time: 3 h
Toxicity to daphnia and other	:	NOEC: 0.02 mg/l

aquatic invertebrates (Chronic toxicity)		Exposure time: 21 d Species: Daphnia magna (Water flea) Analytical monitoring: yes
M-Factor (Chronic aquatic toxicity)	:	1

12.2 Persistence and degradability

Product:

Biodegradability	:	Result: No data available

Components:

N-1-naphthylaniline:

Biodegradability	:	Test Type: aerobic Inoculum: activated sludge Concentration: 100 mg/l Result: According to the results of tests of biodegradability this product is not readily biodegradable. Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301 GLP: yes

12.3 Bioaccumulative potential

Components:

N-1-naphthylaniline:

Bioaccumulation	:	Species: Cyprinus carpio (Carp) Exposure time: 56 d Temperature: 25 °C Concentration: 0.1 mg/l Bioconcentration factor (BCF): 427 - 2,730
Partition coefficient: n-octanol/water	:	log Pow: 4.28

12.4 Mobility in soil

Product:

Mobility	:	Remarks: No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment	:	This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher..

12.6 Other adverse effects

Product:

Additional ecological information	:	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product	:	The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.
Contaminated packaging	:	Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

SECTION 14: Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Remarks	:	Not classified as dangerous in the meaning of transport regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).
REACH - List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	:	Not applicable
Regulation (EC) No 850/2004 on persistent organic pollutants	:	Not applicable

Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.
Not applicable

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

DSL	:	This product contains the following components listed on the Canadian NDSL. All other components are on the Canadian DSL.
AICS	:	On the inventory, or in compliance with the inventory
NZIoC	:	Not in compliance with the inventory
ENCS	:	On the inventory, or in compliance with the inventory
KECI	:	On the inventory, or in compliance with the inventory
PICCS	:	On the inventory, or in compliance with the inventory
IECSC	:	On the inventory, or in compliance with the inventory
TCSI	:	On the inventory, or in compliance with the inventory
US.TSCA	:	All substances listed as active on the TSCA inventory

15.2 Chemical safety assessment

No information available.

SECTION 16: Other information

Full text of H-Statements

H302	:	Harmful if swallowed.
H317	:	May cause an allergic skin reaction.
H373	:	May cause damage to organs through prolonged or repeated exposure if swallowed.
H400	:	Very toxic to aquatic life.
H410	:	Very toxic to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Acute	:	Short-term (acute) aquatic hazard
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Skin Sens.	:	Skin sensitisation
STOT RE	:	Specific target organ toxicity - repeated exposure

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Classification of the mixture:		**Classification procedure:**
Aquatic Chronic 3	H412	Calculation method

Further information

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