

LN

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 28/08/2018 Revision date: 28/08/2018 Version: 1.0

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

1.1. Product identifier

Product form	: Substance (UVCB)
Substance name	: LN
Chemical name	: Naphtha (petroleum), light straight-run; Low boiling point naphtha; [A complex combination of hydrocarbons produced by distillation of crude oil. It consists predominantly of aliphatic hydrocarbons having carbon numbers predominantly in the range of C4 through C10 and boiling in the range of approximately- 20°C to 180°C (– 4°F to 356°F).]
EC Index-No.	: 649-266-00-5
EC-No.	: 265-046-8
CAS-No.	: 64741-46-4
REACH registration No	: Not available
Product group	: Trade product

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

1.2.1. Relevant identified uses

Use of the substance/mixture	: Raw material Petroleum
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Novatek Gas & Power GmbH
Bundesplatz 9, 6300 ZUG
Switzerland
T +41 41 511 41 49 - F +41 41781 52 91
cleanops@novatek-gnp.ch

1.4. Emergency telephone number

Emergency number	: +41 79 9051909 (business hours)
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SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU 2015: According to Regulation (EU) 2015/830 (REACH Annex II)

Flammable liquids, Category 1	H224
Skin corrosion/irritation, Category 2	H315
Germ cell mutagenicity, Category 1B	H340
Carcinogenicity, Category 1B	H350
Reproductive toxicity, Category 2	H361f
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Chronic Hazard, Category 2	H411

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS02



GHS07



GHS08



GHS09

Signal word (CLP)

: Danger

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Hazard statements (CLP)

: H224 - Extremely flammable liquid and vapour.
 H304 - May be fatal if swallowed and enters airways.
 H315 - Causes skin irritation.
 H336 - May cause drowsiness or dizziness.
 H340 - May cause genetic defects.
 H350 - May cause cancer.
 H361f - Suspected of damaging fertility.
 H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P201 - Obtain special instructions before use.
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P235 - Keep cool.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.... Do NOT induce vomiting.
 P308+P313 - IF exposed or concerned: Get medical advice/attention.

2.3. Other hazards not contributing to the classification

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : UVCB
 Name : LN
 CAS-No. : 64741-46-4
 EC-No. : 265-046-8
 EC Index-No. : 649-266-00-5

Name	Product identifier	%
LN	(CAS-No.) 64741-46-4 (EC-No.) 265-046-8 (EC Index-No.) 649-266-00-5 (REACH-no) Not available	≈ 100
benzene	(CAS-No.) 71-43-2 (EC-No.) 200-753-7 (EC Index-No.) 601-020-00-8	0,42

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation

: Remove casualty to fresh air and keep warm and at rest. In case of breathing difficulties administer oxygen. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after skin contact

: After contact with skin, wash immediately with plenty of water and soap. (at least 15 minutes). Remove contaminated clothing immediately. Wash contaminated clothing before reuse. Seek medical attention if irritation develops. When using high-pressure equipment, injection of product can occur. If material is injected under the skin, seek medical attention immediately. Contact burns from hot or very cold materials should be flooded with cool low pressure water for 15 minutes.

First-aid measures after eye contact

: Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Retract eyelids often. In all cases of doubt, or when symptoms persist, seek medical advice.

First-aid measures after ingestion

: If swallowed, do NOT induce vomiting. Rinse mouth immediately and drink plenty of water. Never give anything by mouth to an unconscious person. If spontaneous vomiting is about to occur, place victim's head below knees. Seek medical attention immediately. Caution if victim vomits: Risk of aspiration!.

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

Symptoms/effects

: Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation

: May cause irritation to the respiratory tract. Symptoms include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Pneumonia.

Symptoms/effects after skin contact

: Repeated or prolonged skin contact may cause irritation.

Symptoms/effects after eye contact

: May cause eye irritation. . Redness.

Symptoms/effects after ingestion

: May cause gastrointestinal irritation, nausea, vomiting and diarrhoea. Abdominal pain. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water fog, dry, chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Sand. Inert gas.

Unsuitable extinguishing media : Do not use direct water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Extremely flammable. Flammable vapours can accumulate in head space of closed systems. Vapours may form flammable mixture with air.

Explosion hazard : Risk of explosion if heated under confinement. Vapours may form flammable and explosive mixture with air.

Hazardous decomposition products in case of fire : Toxic gases and fumes may be released in a fire. On combustion, forms: carbon oxides (CO and CO₂).

5.3. Advice for firefighters

Firefighting instructions : Cool adjacent tanks / containers / drums with water jet.

Protective equipment for firefighters : Wear proper protective equipment. Extra personal protection: complete protective clothing including self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Relevant water authorities should be notified of any large spillage to water course or drain.

6.1.1. For non-emergency personnel

Protective equipment : Wear suitable protective clothing gloves, and eye/face protection.

Emergency procedures : Evacuate area. Use care in walking on spilled material. Avoid breathing mist or vapour.

6.1.2. For emergency responders

Protective equipment : Wear suitable protective clothing, gloves and eye/face protection. In case of fire: Wear self-contained breathing apparatus.

Emergency procedures : Evacuate and limit access. Avoid breathing mist or vapour.

6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Relevant water authorities should be notified of any large spillage to water course or drain.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Clean spills promptly. Contain and/or absorb spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Approach from upwind. Dispose in a safe manner in accordance with local/national regulations.

6.4. Reference to other sections

Refer to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Prevent the build-up of electrostatic charge. Use only antistatically equipped (spark-free) tools.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin and eyes. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. If spilled, may cause the floor to be slippery. Remove all contaminated clothing and footwear. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Keep in original containers.

Incompatible materials : Oxidizing agents.

Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition.

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

LN (64741-46-4)

Estonia	OEL TWA (mg/m ³)	1 mg/m ³
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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

LN (64741-46-4)

Latvia	OEL TWA (mg/m³)	100 mg/m³
Lithuania	IPRV (mg/m³)	180 mg/m³
Lithuania	IPRV (ppm)	50 ppm
Lithuania	TPRV (mg/m³)	250 mg/m³
Lithuania	TPRV (ppm)	75 ppm
Poland	NDS (mg/m³)	500 mg/m³
Poland	NDSh (mg/m³)	1500 mg/m³
Romania	OEL TWA (mg/m³)	100 mg/m³
Romania	OEL STEL (mg/m³)	200 mg/m³
Russian Federation	OEL Ceiling (mg/m³)	600 mg/m³
Russian Federation	OEL TWA (mg/m³)	300 mg/m³

benzene (71-43-2)

EU	Local name	Benzene
EU	IOELV TWA (mg/m³)	3,25 mg/m³
EU	IOELV TWA (ppm)	1 ppm
EU	Notes	Skin. Substantial contribution to the total body burden via dermal exposure possible.
EU	Regulatory reference	DIRECTIVE (EU) 2017/2398
Austria	MAK (mg/m³)	3,2 mg/m³ H
Austria	MAK (ppm)	1 ppm H
Austria	MAK Short time value (mg/m³)	12,8 mg/m³ H [MaxMinSchichtE1 "4x15"]
Austria	MAK Short time value (ppm)	4 ppm H [MaxMinSchichtE1 "4x15"]
Austria	TEL TRK (mg/m³)	3,2 mg/m³
Austria	TEL TRK (ppm)	1 ppm
Belgium	Limit value (mg/m³)	3,25 mg/m³
Belgium	Limit value (ppm)	1 ppm
Belgium	Remark (BE)	C, D
Bulgaria	OEL TWA (mg/m³)	3,25 mg/m³
Bulgaria	Bulgaria - BLV	2 mg/l Parameter: Trans, trans-Muconic acid - Medium: urine - Sampling time: at the end of exposure or end of shift (possible significant absorption through the skin) 0,045 mg/g creatinine Parameter: S-Phenyl Mercapturic acid - Medium: urine - Sampling time: at the end of exposure or end of shift (possible significant absorption through the skin)
Croatia	Croatia - BLV	0,12 ppm Parameter: Benzene - Medium: final exhaled air - Sampling time: about 16 hours after completion of the work shift (smoking increases the occurrence) 45 mg/g creatinine Parameter: Phenol - Medium: urine - Sampling time: at the end of the shift (for all results that are expressed as Creatinine, Creatinine concentration less than 0.5 g/L and greater than 3.0 g/L should not be considered)
Cyprus	OEL TWA (mg/m³)	3,25 mg/m³
Cyprus	OEL TWA (ppm)	1 ppm
Czech Republic	Expoziční limity (PEL) (mg/m³)	3 mg/m³
Czech Republic	Expoziční limity (PEL) (ppm)	0,939 ppm
Czech Republic	Expoziční limity (NPK-P) (mg/m³)	10 mg/m³
Czech Republic	Expoziční limity (NPK-P) (ppm)	3,13 ppm
Czech Republic	Remark (CZ)	D, P

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

benzene (71-43-2)

Czech Republic	Czech Republic - BLV	0,024 µmol/mmol Creatinine Parameter: S-Phenylmercapturic acid - Medium: urine - Sampling time: end of shift 0,05 mg/g creatinine Parameter: S-Phenylmercapturic acid - Medium: urine - Sampling time: end of shift 1,2 µmol/mmol Creatinine Parameter: trans,trans-Muconic acid - Medium: urine - Sampling time: end of shift 1,5 mg/g creatinine Parameter: trans,trans-Muconic acid - Medium: urine - Sampling time: end of shift
Denmark	Grænseværdie (langvarig) (mg/m³)	1,6 mg/m³
Denmark	Grænseværdie (langvarig) (ppm)	0,5 ppm
Estonia	OEL TWA (mg/m³)	1,5 mg/m³
Estonia	OEL TWA (ppm)	0,5 ppm
Estonia	OEL STEL (mg/m³)	9 mg/m³
Estonia	OEL STEL (ppm)	3 ppm
Finland	HTP-arvo (8h) (mg/m³)	3,25 mg/m³ (all works)
Finland	HTP-arvo (8h) (ppm)	1 ppm (all works)
France	Local name	Benzène
France	VME (mg/m³)	3,25 mg/m³
France	VME (ppm)	1 ppm
France	Note (FR)	Valeurs réglementaires contraignantes; substance classée cancérigène de catégorie 1A et mutagène de catégorie 1B; risque de pénétration percutanée
France	France - BLV	5 mg/l Parameter: Muconic acid - Medium: urine - Sampling time: end of shift
France	Regulatory reference	Article R4412-149 du Code du travail (réf.: INRS ED 984, 2016)
Greece	OEL TWA (mg/m³)	3,19 mg/m³
Greece	OEL TWA (ppm)	1 ppm
Hungary	MK-érték	3 mg/m³
Ireland	OEL (8 hours ref) (mg/m³)	3 mg/m³
Ireland	OEL (8 hours ref) (ppm)	1 ppm
Italy	OEL TWA (mg/m³)	3,25 mg/m³
Italy	OEL TWA (ppm)	1 ppm
Latvia	OEL TWA (mg/m³)	3,25 mg/m³
Latvia	OEL TWA (ppm)	1 ppm
Latvia	Latvia - BLV	25 µg/g creatinine Parameter: Phenol - Medium: urine - Sampling time: end of shift
Lithuania	IPRV (mg/m³)	3,25 mg/m³
Lithuania	IPRV (ppm)	1 ppm
Lithuania	TPRV (mg/m³)	19 mg/m³
Lithuania	TPRV (ppm)	6 ppm
Luxembourg	OEL TWA (mg/m³)	3,25 mg/m³
Luxembourg	OEL TWA (ppm)	1 ppm
Netherlands	Grenswaarde TGG 8H (mg/m³)	0,7 mg/m³
Poland	NDS (mg/m³)	1,6 mg/m³
Portugal	OEL TWA (ppm)	0,5 ppm
Portugal	OEL STEL (ppm)	2,5 ppm
Romania	OEL TWA (mg/m³)	3,25 mg/m³

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

benzene (71-43-2)		
Romania	OEL TWA (ppm)	1 ppm
Romania	Romania - BLV	25 µg/g creatinine Parameter: S-Phenylmercapturic acid - Medium: urine - Sampling time: end of shift 50 mg/l Parameter: total Phenols - Medium: urine - Sampling time: end of shift
Slovenia	OEL TWA (mg/m³)	3,25 mg/m³
Slovenia	OEL TWA (ppm)	1 ppm
Slovenia	OEL STEL (mg/m³)	13 mg/m³
Slovenia	OEL STEL (ppm)	4 ppm
Spain	VLA-ED (mg/m³)	3,25 mg/m³ (manufacturing, commercialization, and use restrictions under REACH)
Spain	VLA-ED (ppm)	1 ppm (manufacturing, commercialization, and use restrictions under REACH)
Spain		0,045 mg/g creatinine Parameter: S-Phenyl mercapturic acid - Medium: urine - Sampling time: end of exposure or end of shift 2 mg/l Parameter: trans, trans-Muconic acid - Medium: urine - Sampling time: end of exposure or end of shift
Sweden	nivågränsvärde (NVG) (mg/m³)	1,5 mg/m³
Sweden	nivågränsvärde (NVG) (ppm)	0,5 ppm
Sweden	kortidsvärde (KTV) (mg/m³)	9 mg/m³
Sweden	kortidsvärde (KTV) (ppm)	3 ppm
United Kingdom	Local name	Benzene
United Kingdom	WEL TWA (mg/m³)	3,25 mg/m³
United Kingdom	WEL TWA (ppm)	1 ppm
United Kingdom	WEL STEL (mg/m³)	9,75 mg/m³ (calculated)
United Kingdom	WEL STEL (ppm)	3 ppm (calculated)
United Kingdom	Remark (WEL)	Carc (Capable of causing cancer and/or heritable genetic damage. See paragraphs 49–51), Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
United Kingdom	Regulatory reference	EH40. HSE
Russian Federation	Local name	Бензол+
Russian Federation	OEL Ceiling (mg/m³)	15 mg/m³
Russian Federation	OEL TWA (mg/m³)	5 mg/m³
Russian Federation	Remark (RU)	2 класс опасности - высокоопасное; п (пары и/или газы); К (канцерогены); + (соединения, при работе с которыми требуется специальная защита кожи и глаз; символ проставлен вслед за наименованием вещества)
Russian Federation	Regulatory reference	ГН 2.2.5.1313-03
Norway	Grenseverdier (AN) (mg/m³)	3 mg/m³
Norway	Grenseverdier (AN) (ppm)	1 ppm
Norway	Grenseverdier (Kortidsverdi) (mg/m³)	6 mg/m³ (value calculated)
Norway	Grenseverdier (Kortidsverdi) (ppm)	2 ppm (value calculated)
Switzerland	MAK (mg/m³)	1,6 mg/m³
Switzerland	MAK (ppm)	0,5 ppm
Switzerland	Switzerland - BLV	25 µg/g creatinine Parameter: S-Phenyl-mercapturic acid - Medium: urine - Sampling time: end of shift 500 µg/g creatinine Parameter: t,t-Muconic acid - Medium: urine - Sampling time: end of shift

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

benzene (71-43-2)

Turkey	Local name	Benzen
Turkey	OEL TWA (mg/m ³)	3,25 mg/m ³
Turkey	OEL TWA (ppm)	1 ppm
Turkey	Comments	Deri
Turkey	Regulatory reference	6 Ağustos 2013 Tarihli ve 28730 Sayılı Resmî Gazete
Canada (Quebec)	VECD (mg/m ³)	15,5 mg/m ³
Canada (Quebec)	VECD (ppm)	5 ppm
Canada (Quebec)	VEMP (mg/m ³)	3 mg/m ³
Canada (Quebec)	VEMP (ppm)	1 ppm
USA - ACGIH	Local name	Benzene
USA - ACGIH	ACGIH TWA (ppm)	0,5 ppm
USA - ACGIH	ACGIH STEL (ppm)	2,5 ppm
USA - ACGIH	Remark (ACGIH)	Leukemia
USA - OSHA	Local name	Benzene
USA - OSHA	OSHA PEL (TWA) (ppm)	10 ppm 1 ppm
USA - OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1028)
USA - OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm

8.2. Exposure controls

Appropriate engineering controls:

Ensure adequate ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment:

Protective goggles. Gloves. Protective clothing. Gas mask with filter type A.

Hand protection:

Wear suitable gloves tested to EN 374. NBR (Nitrile rubber). Break through time: ≥ 480 min. Material thickness: 0,38 mm.

Eye protection:

Chemical goggles or safety glasses. DIN EN 166

Skin and body protection:

Wear suitable protective clothing. EN 14605

Respiratory protection:

Half/ full mask with filter for organic vapours . half-mask with filter according to EN 149. In confined space use self-contained breathing apparatus. EN 141. EN 140. EN 136

Personal protective equipment symbol(s):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Transparent. Liquid.
Colour	: Colourless.
Odour	: characteristic. Petroleum. Hydrocarbons.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Melting point	: No data available
Freezing point	: -60 (pour point)
Boiling point	: 27 °C
Flash point	: < 0 °C Closed Cup
Auto-ignition temperature	: 415 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 97,079 kPa
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 660 - 720 kg/m³ @ 20 °C
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: 0,5 - 0,6 mm²/s @ 20 °C
Viscosity, dynamic	: No data available
Explosive properties	: Not explosive. Explosive vapour/air mixtures may be formed.
Oxidising properties	: Non oxidizing.
Lower explosive limit (LEL)	: 5 vol % LFL (lower flammable limit)
Upper explosive limit (UEL)	: 15 vol % UFL (upper flammable limit)

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

Stable under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions of use.

10.3. Possibility of hazardous reactions

None under normal conditions. Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Heat, open flame, sparks, hot surfaces, ignition sources, elevated temperature.

10.5. Incompatible materials

oxidizing agents.

10.6. Hazardous decomposition products

On thermal combustion form: Carbon dioxide. Carbon monoxide. hydrocarbons. Hydrogen sulfide. Sulfur oxides.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

LN (64741-46-4)

LD50 oral	> 5000 mg/kg bodyweight OECD 401
LD50 dermal rat	> 2000 mg/kg bodyweight OECD 402
LC50 inhalation rat (Dust/Mist - mg/l/4h)	> 5610 mg/l/4h OECD 403
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: May cause genetic defects.
Carcinogenicity	: May cause cancer.

LN (64741-46-4)

IARC group	2B - Possibly carcinogenic to humans
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benzene (71-43-2)

IARC group	1 - Carcinogenic to humans
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Reproductive toxicity : Suspected of damaging fertility.

LN**Safety Data Sheet**

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Additional information	: Thymus Liver Bone Marrow

LN (64741-46-4)

NOAEL (oral, rat, 90 days)	>= 5 mg/kg bodyweight/day
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Aspiration hazard	: May be fatal if swallowed and enters airways.
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LN (64741-46-4)

Viscosity, kinematic	0,5 - 0,6 mm²/s @ 20 °C
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SECTION 12: Ecological information**12.1. Toxicity**

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Toxic to aquatic life with long lasting effects.

benzene (71-43-2)

LC50 fish 1	10,7 - 14,7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
LC50 fish 2	5,3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 1	8,76 - 15,6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 Daphnia 2	10 mg/l (Exposure time: 48 h - Species: Daphnia magna)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential**benzene (71-43-2)**

BCF fish 1	3,5 - 4,4
Bioconcentration factor (BCF REACH)	> 2000
Log Pow	1,83
Bioaccumulative potential	not bioaccumulable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment**LN (64741-46-4)**

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Component

LN (64741-46-4)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
benzene (71-43-2)	This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Regional legislation (waste)	: Dispose of contents/container to comply with applicable local, national and international regulations.
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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1268	1268	1268	1268	1268

LN

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830






14.2. UN proper shipping name

PETROLEUM PRODUCTS, N.O.S.	PETROLEUM PRODUCTS, N.O.S.	Petroleum distillates, n.o.s.	PETROLEUM PRODUCTS, N.O.S.	PETROLEUM PRODUCTS, N.O.S.
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Transport document description

UN 1268 PETROLEUM PRODUCTS, N.O.S., 3, III, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1268 PETROLEUM PRODUCTS, N.O.S., 3, III, MARINE POLLUTANT/ENVIRONME NTALLY HAZARDOUS	UN 1268 Petroleum distillates, n.o.s., 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1268 PETROLEUM PRODUCTS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS	UN 1268 PETROLEUM PRODUCTS, N.O.S., 3, III, ENVIRONMENTALLY HAZARDOUS
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14.3. Transport hazard class(es)

3	3	3	3	3
				

14.4. Packing group

III	III	III	III	III
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14.5. Environmental hazards

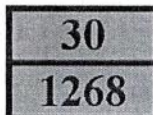
Dangerous for the environment : Yes	Dangerous for the environment : Yes Marine pollutant : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes	Dangerous for the environment : Yes
----------------------------------------	------------------------------------------------------------------	----------------------------------------	----------------------------------------	----------------------------------------

No supplementary information available

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: F1
Special provisions (ADR)	: 664
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1, TP29
Tank code (ADR)	: LGBF
Vehicle for tank carriage	: FL
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: 30
Orange plates	:



Tunnel restriction code (ADR)	: D/E
EAC code	: 3YE

Transport by sea

Special provisions (IMDG)	: 223, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Immiscible with water.

Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3
ERG code (IATA)	: 3L

Inland waterway transport

Classification code (ADN)	: F1
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 0

Rail transport

Classification code (RID)	: F1
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Colis express (express parcels) (RID)	: CE4
Hazard identification number (RID)	: 30

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

Not applicable

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

No REACH Annex XVII restrictions
 LN is not on the REACH Candidate List
 LN is not on the REACH Annex XIV List
 Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on the Canadian DSL (Domestic Substances List)
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
 Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
 Listed on the United States TSCA (Toxic Substances Control Act) inventory
 Listed on INSQ (Mexican National Inventory of Chemical Substances)
 Listed on Turkish inventory of chemical
 Listed on the TCSI (Taiwan Chemical Substance Inventory)

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Germany

Reference to AwSV

: Water hazard class (WGK) 3, severe hazard to water (Classification according to VwVwS, Annex 1 or 2; ID No. 8357)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV

: Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

	ATE - acute toxicity estimate
	BCF - bioconcentration factor
	CAS - Chemical Abstracts Service
	CLP - Classification, Labelling and Packaging
	CSR - Chemical Safety Report
	GHS - Globally Harmonised System
	Overland transport (ADR)
	PBT - Persistent, Bioaccumulative and Toxic substance
	PEL- Permissible Exposure Level
	REACH - Registration, Evaluation, Authorisation and Restriction of Chemicals
	Relat - Relative
	SDS - Safety Data Sheet
	STEL- Short-Term Exposure Limit
	TLV- Threshold Limit Value
	TWA- Time Weighted Average
	vPvB - Very Persistent and Very Bioaccumulative

Sources of Key data

: REACH registration.

Other information

: The information presented in this Safety Data Sheet is based on current knowledge and is believed to be complete and accurate. It describes the product for the purposes of health, safety and environment requirements only and shall, therefore, be used only as a guide. The data refers to a specific product and may not be valid for combined uses with other products. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The Supplier of this SDS shall not be responsible for any damage or injury resulting from abnormal use or from any failure to adhere to recommended practices.

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1A	Carcinogenicity, Category 1A
Carc. 1B	Carcinogenicity, Category 1B
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 1	Flammable liquids, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Muta. 1B	Germ cell mutagenicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 1	Specific target organ toxicity — Repeated exposure, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

SDS EU (REACH Annex II)

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