



SAFETY DATA SHEET

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

1.1. Product identifier

Trade name or designation of the mixture LMG-30E®
Registration number -
Synonyms None.
Product code 591M35
Issue date 30-January-2018
Version number 02
Revision date 06-February-2018
Supersedes date 30-January-2018

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

Identified uses Corrosion inhibitor
Uses advised against None known.

1.3. Details of the supplier of the safety data sheet

Supplier

Company name Liquid Minerals Group, Ltd.
Address PO Box 1700
New Waverly, TX 77358
United States
Division
Telephone (936)291-2424 (8 AM to 5 PM Central)
e-mail sdsinfo@pilotchemical.com
Contact person Not available.

1.4. Emergency telephone number CHEMTREC (US) 800-424-9300
CHEMTREC (International) 703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

The mixture has been assessed and/or tested for its physical, health and environmental hazards and the following classification applies.

Classification according to Regulation (EC) No 1272/2008 as amended

Health hazards

Acute toxicity, inhalation	Category 4	H332 - Harmful if inhaled.
Skin corrosion/irritation	Category 2	H315 - Causes skin irritation.
Serious eye damage/eye irritation	Category 2	H319 - Causes serious eye irritation.
Carcinogenicity	Category 2	H351 - Suspected of causing cancer.
Aspiration hazard	Category 1	H304 - May be fatal if swallowed and enters airways.

Environmental hazards

Hazardous to the aquatic environment, long-term aquatic hazard	Category 2	H411 - Toxic to aquatic life with long lasting effects.
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Hazard summary

May be fatal if swallowed and enters airways. Harmful if inhaled. Suspected of causing cancer. Causes serious eye irritation. Causes skin irritation. Prolonged exposure may cause chronic effects. Dangerous for the environment if discharged into watercourses. Occupational exposure to the substance or mixture may cause adverse health effects.

2.2. Label elements

Label according to Regulation (EC) No. 1272/2008 as amended

Contains: Asphalt, Distillates, Petroleum, Hydrotreated Heavy Naphthenic, Naphthalene, Solvent naphtha (petroleum), heavy arom.

Hazard pictograms



Signal word

Danger

Hazard statements

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing vapours.
P264	Wash thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE/doctor.
P331	Do NOT induce vomiting.
P302 + P352	IF ON SKIN: Wash with plenty of water.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313	IF exposed or concerned: Get medical advice/attention.
P312	Call a POISON CENTRE/doctor if you feel unwell.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.

Storage

P405	Store locked up.
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Disposal

P501	Dispose of contents/container in accordance with local/regional/national/international regulations.
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Supplemental label information

72,26 % of the mixture consists of component(s) of unknown acute oral toxicity. 70,48 % of the mixture consists of component(s) of unknown acute dermal toxicity. 98,72 % of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 86,28 % of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

2.3. Other hazards

Not a PBT or vPvB substance or mixture.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

General information

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Fatty Acids, Tall Oil, Magnesium Salts	40 - < 80	67701-23-9 266-942-1	-	-	
Classification:	Skin Irrit. 2;H315, Eye Irrit. 2;H319				
Distillates, Petroleum, Hydrotreated Heavy Naphthenic	10 - < 20	64742-52-5 265-155-0	-	649-465-00-7	
Classification:	Asp. Tox. 1;H304				
Solvent naphtha (petroleum), heavy arom.	10 - < 20	64742-94-5 265-198-5	-	649-424-00-3	
Classification:	Flam. Liq. 3;H226, Asp. Tox. 1;H304, Acute Tox. 4;H332, Carc. 2;H351, Aquatic Chronic 2;H411				
Asphalt	1 - < 3	8052-42-4 232-490-9	-	-	
Classification:	Flam. Liq. 2;H225, Carc. 2;H351				

Chemical name	%	CAS-No. / EC No.	REACH Registration No.	INDEX No.	Notes
Naphthalene	1 - < 3	91-20-3 202-049-5	-	601-052-00-2	#
Classification:	Acute Tox. 4;H302, Carc. 2;H351, Aquatic Acute 1;H400, Aquatic Chronic 1;H410				

List of abbreviations and symbols that may be used above

#: This substance has been assigned Union workplace exposure limit(s).

M: M-factor

PBT: persistent, bioaccumulative and toxic substance.

vPvB: very persistent and very bioaccumulative substance.

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Composition comments The full text for all H-statements is displayed in section 16.

SECTION 4: First aid measures

General information IF exposed or concerned: Get medical advice/attention. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

4.1. Description of first aid measures

- Inhalation** Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a POISON CENTRE or doctor/physician if you feel unwell.
- Skin contact** Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
- Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
- Ingestion** Call a physician or poison control centre immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

4.2. Most important symptoms and effects, both acute and delayed Aspiration may cause pulmonary oedema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

4.3. Indication of any immediate medical attention and special treatment needed Provide general supportive measures and treat symptomatically. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

SECTION 5: Firefighting measures

General fire hazards No unusual fire or explosion hazards noted.

5.1. Extinguishing media

Suitable extinguishing media Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture During fire, gases hazardous to health may be formed.

5.3. Advice for firefighters

Special protective equipment for firefighters Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Special fire fighting procedures Move containers from fire area if you can do so without risk.

Specific methods Use standard firefighting procedures and consider the hazards of other involved materials.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapours and spray mists. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

For emergency responders Keep unnecessary personnel away. Use personal protection recommended in Section 8 of the SDS.

6.2. Environmental precautions Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

The product is immiscible with water and will sediment in water systems. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers.

6.4. Reference to other sections

For personal protection, see section 8 of the SDS. For waste disposal, see section 13 of the SDS.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid inhalation of vapours and spray mists. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Should be handled in closed systems, if possible. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

7.2. Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

Austria. MAK List, OEL Ordinance (GwV), BGBl. II, no. 184/2001

Components	Type	Value
Naphthalene (CAS 91-20-3)	MAK	50 mg/m3 10 ppm

Belgium. Exposure Limit Values.

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m3	Fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	TWA	5 mg/m3	Mist.
	STEL	80 mg/m3 15 ppm	
	TWA	53 mg/m3 10 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	200 mg/m3	Vapor.

Bulgaria. OELs. Regulation No 13 on protection of workers against risks of exposure to chemical agents at work

Components	Type	Value
Asphalt (CAS 8052-42-4)	STEL	10 mg/m3
	TWA	5 mg/m3
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3
Naphthalene (CAS 91-20-3)	STEL	75 mg/m3
	TWA	50 mg/m3
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	300 mg/m3

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
Asphalt (CAS 8052-42-4)	MAC	5 mg/m3

Croatia. Dangerous Substance Exposure Limit Values in the Workplace (ELVs), Annexes 1 and 2, Narodne Novine, 13/09

Components	Type	Value
Naphthalene (CAS 91-20-3)	STEL	10 mg/m3
	MAC	50 mg/m3
		10 ppm

Cyprus. OELs. Control of factory atmosphere and dangerous substances in factories regulation, PI 311/73, as amended.

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m3	Fume.
Naphthalene (CAS 91-20-3)	TWA	0,2 mg/m3	

Czech Republic. OELs. Government Decree 361

Components	Type	Value
Naphthalene (CAS 91-20-3)	Ceiling	100 mg/m3
	TWA	50 mg/m3
	Ceiling	1000 mg/m3
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	200 mg/m3

Denmark. Exposure Limit Values

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TLV	1 mg/m3	Dust.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TLV	1 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	TLV	50 mg/m3	
		10 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TLV	25 ppm	

Estonia. OELs. Occupational Exposure Limits of Hazardous Substances. (Annex of Regulation No. 293 of 18 September 2001)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m3	Vapor.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3	
		10 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	STEL	300 mg/m3	
		50 ppm	

Finland. Workplace Exposure Limits

Components	Type	Value
Naphthalene (CAS 91-20-3)	STEL	10 mg/m3
		2 ppm
	TWA	5 mg/m3
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	1 ppm
		100 mg/m3

France. Threshold Limit Values (VLEP) for Occupational Exposure to Chemicals in France, INRS ED 984

Components	Type	Value
Naphthalene (CAS 91-20-3)	VME	50 mg/m3
		10 ppm

Germany. TRGS 900, Limit Values in the Ambient Air at the Workplace

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	AGW	0,5 mg/m3	Inhalable fraction.
		0,1 ppm	Inhalable fraction.

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m3	

Greece. OELs (Decree No. 90/1999, as amended)

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Mist.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm	

Hungary. OELs. Joint Decree on Chemical Safety of Workplaces

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	Ceiling	5 mg/m ³	Mist.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³	

Iceland. OELs. Regulation 154/1999 on occupational exposure limits

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m ³	Fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	1 mg/m ³	Mist.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm	

Ireland. Occupational Exposure Limits

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	STEL	10 mg/m ³	Fume.
	TWA	0,5 mg/m ³	Fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.
Naphthalene (CAS 91-20-3)	STEL	75 mg/m ³ 15 ppm	
	TWA	50 mg/m ³ 10 ppm	

Italy. Occupational Exposure Limits

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0,5 mg/m ³	Inhalable fraction.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable fraction.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	200 mg/m ³	Non-aerosol.

Latvia. OELs. Occupational exposure limit values of chemical substances in work environment

Components	Type	Value
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	10 mg/m ³

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	3 mg/m ³	Fume and mist.
	TWA	1 mg/m ³	Fume and mist.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³	

Lithuania. OELs. Limit Values for Chemical Substances, General Requirements

Components	Type	Value	Form
		10 ppm	

Luxembourg. Binding Occupational exposure limit values (Annex I), Memorial A

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3 10 ppm	

Malta. OELs. Occupational Exposure Limit Values (L.N. 227. of Occupational Health and Safety Authority Act (CAP. 424), Schedules I and V)

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3 10 ppm	

Netherlands. OELs (binding)

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	STEL TWA	80 mg/m3 50 mg/m3	

Norway. Administrative Norms for Contaminants in the Workplace

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TLV	5 mg/m3	Fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TLV	1 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	TLV	50 mg/m3 10 ppm	

Poland. MACs. Regulation regarding maximum permissible concentrations and intensities of harmful factors in the work environment, Annex 1

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	STEL TWA	10 mg/m3 5 mg/m3	Inhalable fraction. Inhalable fraction.
Naphthalene (CAS 91-20-3)	STEL TWA	50 mg/m3 20 mg/m3	

Portugal. OELs. Decree-Law n. 290/2001 (Journal of the Republic - 1 Series A, n.266)

Components	Type	Value	Form
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3 10 ppm	

Portugal. VLEs. Norm on occupational exposure to chemical agents (NP 1796)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0,5 mg/m3	Inhalable fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	Aerosol
Naphthalene (CAS 91-20-3)	TWA STEL TWA	5 mg/m3 15 ppm 10 ppm	Aerosol

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	5 mg/m3	Fume.
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	
Naphthalene (CAS 91-20-3)	TWA TWA	5 mg/m3 50 mg/m3 10 ppm	

Romania. OELs. Protection of workers from exposure to chemical agents at the workplace

Components	Type	Value	Form
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	STEL	200 mg/m3	
	TWA	100 mg/m3	

Slovakia. OELs. Regulation No. 300/2007 concerning protection of health in work with chemical agents

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	3 mg/m3	Fume and mist.
	TWA	15 ppm	Fume and mist.
		1 mg/m3	Fume and mist.
Naphthalene (CAS 91-20-3)	STEL	5 ppm	Fume and mist.
		80 mg/m3	
	TWA	15 ppm	
		50 mg/m3	
		10 ppm	

Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	10 ppm	Vapor and aerosol.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m3	
		10 ppm	

Spain. Occupational Exposure Limits

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	0,5 mg/m3	Aerosol
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	10 mg/m3	Mist.
	TWA	5 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	STEL	80 mg/m3	
	TWA	15 ppm	
		53 mg/m3	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	10 ppm	
		200 mg/m3	

Sweden. OELs. Work Environment Authority (AV), Occupational Exposure Limit Values (AFS 2015:7)

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	STEL	3 mg/m3	Mist.
	TWA	1 mg/m3	Mist.
Naphthalene (CAS 91-20-3)	STEL	80 mg/m3	
	TWA	15 ppm	
		50 mg/m3	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	STEL	10 ppm	
		300 mg/m3	
	TWA	50 ppm	
		150 mg/m3	
		25 ppm	

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	TWA	10 mg/m3	Vapor and aerosol.

Switzerland. SUVA Grenzwerte am Arbeitsplatz

Components	Type	Value	Form
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)	TWA	5 mg/m ³	Inhalable dust.
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm	
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)	TWA	1100 mg/m ³ 300 ppm	

UK. EH40 Workplace Exposure Limits (WELs)

Components	Type	Value	Form
Asphalt (CAS 8052-42-4)	STEL	10 mg/m ³	Fume.
	TWA	5 mg/m ³	Fume.

EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU

Components	Type	Value
Naphthalene (CAS 91-20-3)	TWA	50 mg/m ³ 10 ppm

Biological limit values**Slovakia. BLVs (Biological Limit Value). Regulation no. 355/2006 concerning protection of workers exposed to chemical agents, Annex 2**

Components	Value	Determinant	Specimen	Sampling time
Naphthalene (CAS 91-20-3)	3,77 µg/g	1-Hydroxypyrene	Creatinine in urine	*
	5,66 µg/l	1-Hydroxypyrene	Urine	*

* - For sampling details, please see the source document.

UK. EH40 Biological Monitoring Guidance Values (BMGVs)

Components	Value	Determinant	Specimen	Sampling time
Naphthalene (CAS 91-20-3)	4 µmol/mol	1-Hydroxypyrene	Creatinine in urine	*

* - For sampling details, please see the source document.

Recommended monitoring procedures Follow standard monitoring procedures.

Derived no effect levels (DNELs) Not available.

Predicted no effect concentrations (PNECs) Not available.

Exposure guidelines**Slovenia. OELs. Regulations concerning protection of workers against risks due to exposure to chemicals while working (Official Gazette of the Republic of Slovenia)**

Asphalt (CAS 8052-42-4) Can be absorbed through the skin.

8.2. Exposure controls

Appropriate engineering controls Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Eye wash fountain and emergency showers are recommended.

Individual protection measures, such as personal protective equipment

General information Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

Eye/face protection Chemical respirator with organic vapour cartridge and full facepiece.

Skin protection

- Hand protection Wear appropriate chemical resistant gloves.

- Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection Chemical respirator with organic vapour cartridge and full facepiece.

Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
Hygiene measures	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.
Environmental exposure controls	Inform appropriate managerial or supervisory personnel of all environmental releases.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Colour	Dark brown
Odour	Hydrocarbon-like.
Odour threshold	Not available.
pH	Not available.
Melting point/freezing point	< -40 °C (< -40 °F)
Initial boiling point and boiling range	176 °C (348,8 °F)
Flash point	65,6 °C (150,1 °F) Pensky-Martens Closed Cup
Evaporation rate	< 1 (Ether =1)
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Vapour pressure	< 5 mm Hg @ 21°C
Vapour density	> 1 (Air =1)
Relative density	1,42
Solubility(ies)	
Solubility (water)	Insoluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	< 400 cSt @ 60°F
Explosive properties	Not explosive.
Oxidising properties	Not oxidising.

9.2. Other information

Pour point	< -40 °C (< -40 °F)
Shelf life	360 days

SECTION 10: Stability and reactivity

10.1. Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
10.2. Chemical stability	Material is stable under normal conditions.
10.3. Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
10.4. Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
10.5. Incompatible materials	Strong oxidising agents.
10.6. Hazardous decomposition products	No hazardous decomposition products are known.

SECTION 11: Toxicological information

General information	Occupational exposure to the substance or mixture may cause adverse effects.
Information on likely routes of exposure	
Inhalation	Harmful if inhaled.

Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.
Symptoms	Aspiration may cause pulmonary oedema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

11.1. Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Harmful if inhaled.

Product	Species	Test results
LMG-30E®		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg
Inhalation		
<i>Mist</i>		
LC50	Rat	> 5 mg/l, 4 h
Oral		
LD50	Rat	> 3000 mg/kg
Components	Species	Test results
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
Inhalation		
<i>Aerosol</i>		
LC50	Rat	> 5,53 mg/l, 4 Hours
Oral		
LD50	Rat	> 5000 mg/kg
Naphthalene (CAS 91-20-3)		
Acute		
Oral		
LD50	Rat	490 mg/kg
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)		
Acute		
Dermal		
LD50	-	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	-	> 5,3 mg/l
Oral		
LD100	Rat	5000 mg/kg
LD50	Rat	> 2000 mg/kg

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitisation	Not a respiratory sensitizer.
Skin sensitisation	This product is not expected to cause skin sensitisation.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Suspected of causing cancer.

Hungary. 26/2000 EüM Ordinance on protection against and preventing risk relating to exposure to carcinogens at work (as amended)

Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

IARC Monographs. Overall Evaluation of Carcinogenicity

Asphalt (CAS 8052-42-4)

2B Possibly carcinogenic to humans.

Naphthalene (CAS 91-20-3)

2B Possibly carcinogenic to humans.

Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified.
Specific target organ toxicity - repeated exposure	Not classified.
Aspiration hazard	May be fatal if swallowed and enters airways.
Mixture versus substance information	No information available.
Other information	Not available.

SECTION 12: Ecological information

12.1. Toxicity Toxic to aquatic life with long lasting effects. Based on available data, the classification criteria are not met for hazardous to the aquatic environment, acute hazard.

Components	Species	Test results
Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)		
Aquatic		
<i>Acute</i>		
Algae	NOEL	Algae >= 100 mg/l, 72 h
Crustacea	EC50	Daphnia > 10000 mg/l, 48 h
Fish	LC50	Fathead minnow (Pimephales promelas) > 100 mg/l, 96 h
<i>Chronic</i>		
Crustacea	NOEC	Daphnia 10 mg/l, 21 d
Naphthalene (CAS 91-20-3)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia magna) 1,09 - 3,4 mg/l, 48 hours
Fish	LC50	Pink salmon (Oncorhynchus gorbuscha) 1,11 - 1,68 mg/l, 96 hours
Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)		
Aquatic		
Crustacea	EC50	Water flea (Daphnia pulex) 2,7 - 5,1 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss) 8,8 mg/l, 96 hours
		8,8 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

12.2. Persistence and degradability No data is available on the degradability of this product.

12.3. Bioaccumulative potential No data available.

Partition coefficient n-octanol/water (log Kow)

Naphthalene 3,3

Bioconcentration factor (BCF) Not available.

12.4. Mobility in soil No data available.

12.5. Results of PBT and vPvB assessment Not a PBT or vPvB substance or mixture.

12.6. Other adverse effects No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

12.7. Additional information

Estonia Dangerous substances in groundwater Data

Naphthalene (CAS 91-20-3) NAPHTHALENE 1 UG/L
NAPHTHALENE 50 UG/L

Estonia Dangerous substances in soil Data

Naphthalene (CAS 91-20-3) NAPHTHALENE 1 mg/kg
NAPHTHALENE 5 mg/kg
NAPHTHALENE 50 mg/kg

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Residual waste	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.
EU waste code	The Waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Disposal methods/information	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Special precautions	Dispose in accordance with all applicable regulations.

SECTION 14: Transport information

ADR

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
Hazard No. (ADR)	90
Tunnel restriction code	E
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

RID

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

ADN

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
Label(s)	9
14.4. Packing group	III
14.5. Environmental hazards	Yes
14.6. Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.

IATA

14.1. UN number	UN3082
14.2. UN proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Transport hazard class(es)	
Class	9
Subsidiary risk	-
14.4. Packing group	III
14.5. Environmental hazards	Yes
ERG Code	9L

14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo aircraft Allowed with restrictions.

Cargo aircraft only Allowed with restrictions.

IMDG

14.1. UN number UN3082

14.2. UN proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., MARINE POLLUTANT

14.3. Transport hazard class(es)

Class 9

Subsidiary risk -

14.4. Packing group III

14.5. Environmental hazards

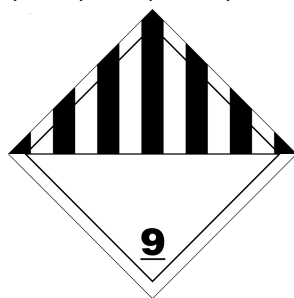
Marine pollutant Yes

EmS F-A, S-F

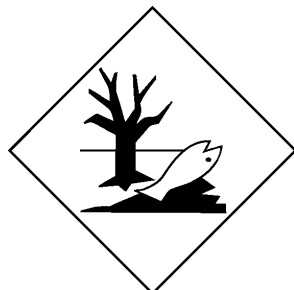
14.6. Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

ADN; ADR; IATA; IMDG; RID



Marine pollutant



General information IMDG Regulated Marine Pollutant.

SECTION 15: Regulatory information

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

EU regulations

Regulation (EC) No. 1005/2009 on substances that deplete the ozone layer, Annex I and II, as amended

Not listed.

Regulation (EC) No. 850/2004 On persistent organic pollutants, Annex I as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended

Not listed.

Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended

Not listed.

Regulation (EC) No. 166/2006 Annex II Pollutant Release and Transfer Registry, as amended

Not listed.

Regulation (EC) No. 1907/2006, REACH Article 59(10) Candidate List as currently published by ECHA

Not listed.

Authorisations

Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorization, as amended

Not listed.

Restrictions on use

Regulation (EC) No. 1907/2006, REACH Annex XVII Substances subject to restriction on marketing and use as amended

Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)

Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

Directive 2004/37/EC: on the protection of workers from the risks related to exposure to carcinogens and mutagens at work, as amended.

Distillates, Petroleum, Hydrotreated Heavy Naphthenic (CAS 64742-52-5)

Solvent naphtha (petroleum), heavy arom. (CAS 64742-94-5)

Other EU regulations

Directive 2012/18/EU on major accident hazards involving dangerous substances, as amended

Naphthalene (CAS 91-20-3)

Other regulations

Pregnant women should not work with the product, if there is the least risk of exposure. The product is classified and labelled in accordance with Regulation (EC) 1272/2008 (CLP Regulation) as amended. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006, as amended. Additional information is given in the Safety Data Sheet.

National regulations

Follow national regulation for work with chemical agents. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work, as amended.

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out.

SECTION 16: Other information

List of abbreviations

Not available.

References

Not available.

Information on evaluation method leading to the classification of mixture

The classification for health and environmental hazards is derived by a combination of calculation methods and test data, if available.

Full text of any H-statements not written out in full under Sections 2 to 15

H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H315 Causes skin irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H411 Toxic to aquatic life with long lasting effects.

Revision information

Product and Company Identification: Product and Company Identification
Toxicological Information: Toxicological Data

Training information

Follow training instructions when handling this material.

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