

Naphtha

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Revision date: 29 Dec 2020 Version: 4.0

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

1.1. Product identifier

Product form	: Substance (UVCB)
Trade name	: Naphtha
Chemical name	: Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha; [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C5 through C10 and boiling in the range of approximately 35°C to 160°C (95°F to 320°F).]
IUPAC name	: Solvent naphtha (petroleum), light aliph.
EC Index-No.	: 649-267-00-0
EC-No.	: 265-192-2
CAS-No.	: 64742-89-8
REACH registration No	: 01-2119471306-40
Type of product	: Hydrocarbons
Synonyms	: Solvent naphtha (petroleum), light aliph.
Product group	: Raw material
BIG No	: F06734

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

1.2.1. Relevant identified uses

Main use category	: Industrial use
Use of the substance/mixture	: Chemical raw material
Function or use category	: Intermediates

Title	Life cycle stage	Use descriptors
Use of substance as intermediate (ES Ref.: ES 2)	Industrial	SU8, SU9, PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, PROC28, ERC6a
Manufacture of substance (ES Ref.: ES 1)	Manufacture	PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC15, PROC28, ERC1

Full text of use descriptors: see section 16

1.2.2. Uses advised against

No additional information available

NOR1.3. Details of the supplier of product safety information sheet

Manufacturer

ZapSibNeftekhim LLC
Promzona
626150 Tobolsk, Tyumen region - Russian Federation
T +7 (3456) 398-000 - F +7 (3456) 266-449
ZapSib@sibur.ru

Only Representative

Gazprom Marketing and Trading France
avenue des Champs-Élysées 68
75008 Paris - France
T +33 1 42 99 73 50 - F +33 1 42 99 73 99
didier.lebout@gazprom-mt.com

1.4. Emergency telephone number

Country	Official advisory body	Address	Emergency number	Comment
Belgium	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+32 70 245 245	Please dial: 070 245 245 for any urgent questions about intoxication (free of charge 24/7), if not accessible, dial: 02 264 96 30 (standard fee)

Naphtha

Safety Data Sheet

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

Croatia	Centar za kontrolu otrovanja Institut za medicinska istraživanja i medicinu rada	Ksaverska Cesta 2 p.p. 291 10000 Zagreb	+385 1 234 8342	
Denmark	Giftlinjen Bispebjerg Hospital	Bispebjerg Bakke 23 2400 København NV	+45 82 12 12 12	
Estonia	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	16662 +372 626 93 90	
Finland	Myrkytystietokeskus	Stenbäckinkatu 9 PO BOX 100 29 Helsinki	+358 9 471 977 +358 800 147 111	
Greece	Poisons Information Centre Children's Hospital P&A Kyriakou	11762 Athens	+30 2 10 779 3777	
Greece	Department of Forensic Medicine & Toxicology Aristotle University of Thessaloniki, Medical Faculty	54006 Thessaloniki		
Latvia	Valsts Toksikoloģijas centrs, Saindēšanās un zāļu informācijas centrs	Hipokrāta 2 1038 Rīga	+371 67 04 24 73	
Lithuania	Apsinuodijimų informacijos biuras	Birutės g. 56 8110 Vilnius	+370 5 236 20 52 +370 687 53378	
Luxembourg	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 1120 Bruxelles/Brussel	+352 8002 5500	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
Norway	Giftinformasjonen Helsedirektoratet	P.O. Box 7000 St. Olavs Plass 130 Oslo	+47 22 591300	
Slovakia	Národné toxikologické informačné centrum Univerzitná nemocnica Bratislava, pracovisko Kramáre, Klinika pracovného lekárstva a toxikológie	Limbová 5 833 05 Bratislava	+421 2 54 77 41 66	
Slovenia	Center za klinično toksikologijo in farmakologijo Interna klinika, UKCL	Zaloška cesta 7 1525 Ljubljana	+386 41 650 500	
Sweden	Giftinformationscentralen	Box 60 500 171 76 Stockholm	112 – begär Giftinformation +46 10 456 6700 (Från utlandet)	
Switzerland	Tox Info Suisse	Freiestrasse 16 8032 Zürich	145	(from abroad: +41 44 251 51 51) non urgent inquiry: +41 44 251 66 66

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 1	H224
Skin corrosion/irritation, Category 2	H315
Germ cell mutagenicity, Category 1B	H340

Naphtha

Safety Data Sheet

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

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

Extremely flammable liquid and vapour. May cause cancer. May cause genetic defects. Suspected of damaging fertility or the unborn child. May cause drowsiness or dizziness. Causes skin irritation. May be fatal if swallowed and enters airways. Toxic to aquatic life with long lasting effects.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

Hazard statements (CLP)

Precautionary statements (CLP)

- : Danger
- : 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.
- : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.
No smoking.
P233 - Keep container tightly closed.
P240 - Ground and bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 - Wash hands, forearms and face 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/hearing protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P302+P352 - IF ON SKIN: Wash with plenty of water.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water .
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P312 - Call a POISON CENTRE or doctor if you feel unwell.
P321 - Specific treatment (see supplemental first aid instruction on this label).
P331 - Do NOT induce vomiting.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use media other than water to extinguish.
P391 - Collect spillage.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

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

Naphtha

Safety Data Sheet

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

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	: Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha; [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C5 through C10 and boiling in the range of approximately 35°C to 160°C (95°F to 320°F).]
CAS-No.	: 64742-89-8
EC-No.	: 265-192-2
EC Index-No.	: 649-267-00-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha; [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C5 through C10 and boiling in the range of approximately 35°C to 160°C (95°F to 320°F).] (Note P)	(CAS-No.) 64742-89-8 (EC-No.) 265-192-2 (EC Index-No.) 649-267-00-0 (REACH-no) 01-2119471306-40	100	
hexane	(CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0	6 – 20	Flam. Liq. 2, H225 Repr. 2, H361f Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411
Benzene (Note E (obsolete))	(CAS-No.) 71-43-2 (EC-No.) 200-753-7 (EC Index-No.) 601-020-00-8	0.2 – 1.6	Flam. Liq. 2, H225 Carc. 1A, H350 Muta. 1B, H340 STOT RE 1, H372 Asp. Tox. 1, H304 Eye Irrit. 2, H319 Skin Irrit. 2, H315
Toluene	(CAS-No.) 108-88-3 (EC-No.) 203-625-9 (EC Index-No.) 601-021-00-3	0.16 – 1.1	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336

Specific concentration limits:

Name	Product identifier	Specific concentration limits
hexane	(CAS-No.) 110-54-3 (EC-No.) 203-777-6 (EC Index-No.) 601-037-00-0	(5 ≤C ≤ 100) STOT RE 2, H373

Full text of H-statements: see section 16

Naphtha

Safety Data Sheet

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

Note E : Substances with specific effects on human health (see Chapter 4 of Annex VI to Directive 67/548/EEC) that are classified as carcinogenic, mutagenic and/or toxic for reproduction in categories 1 or 2 are ascribed Note E if they are also classified as very toxic (T+), toxic (T) or harmful (Xn). For these substances, the risk phrases R20, R21, R22, R23, R24, R25, R26, R27, R28, R39, R68 (harmful), R48 and R65 and all combinations of these risk phrases shall be preceded by the word 'Also'. (obsolete)

Note P : The classification as a carcinogen or mutagen need not apply if it can be shown that the substance contains less than 0,1 % w/w benzene (EINECS No 200-753-7). When the substance is not classified as a carcinogen at least the precautionary statements (P102-)P260-P262- P301 + P310-P331 (Table 3.1) or the S-phrases (2-)23-24-62 (Table 3.2) shall apply. This note applies only to certain complex oil-derived substances in Part 3.

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Call a physician immediately. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.
First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. If irritation persists, consult a doctor/medical service.
First-aid measures after ingestion	: Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after ingestion	: Risk of lung oedema.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable liquid and vapour.
Explosion hazard	: Explosion risk in case of fire.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Eliminate all ignition sources if safe to do so. Exposure to fire may cause containers to rupture/explode. Exposure to fire/heat: consider evacuation. Fight fire remotely due to the risk of explosion. Keep away from combustible materials.
Firefighting instructions	: Do not enter fire area without proper protective equipment, including respiratory protection. Eliminate all ignition sources if safe to do so. Take account of environmentally hazardous firefighting water. Cool tanks/drums with water spray/remove them into safety. Exercise caution when fighting any chemical fire. Fight fire remotely due to the risk of explosion. In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

Naphtha

Safety Data Sheet

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment as required. Eliminate every possible source of ignition. Do not handle until all safety precautions have been read and understood. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Use special care to avoid static electric charges.

6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Evacuate unnecessary personnel. All equipment used when handling the product must be grounded. Do not touch spilled material. Keep away from combustible material. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Ground/bond container and receiving equipment.

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

Incompatible products : Combustible materials. Oxidizing materials. Strong acids. Strong bases.

Incompatible materials : Direct sunlight. Heat sources. combustible materials.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources. flames or sparks.

Storage area : Store {0|message=<specify in accordance with local/regional/national/international regulations>|default=in accordance with local regulations on explosives|filter=^(_) ?RELEVANT_REGUL_+}.

Naphtha

Safety Data Sheet

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

Packaging materials : steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Benzene (71-43-2)

EU - Occupational Exposure Limits

Local name	Benzene
IOELV TWA (mg/m ³)	3.25 mg/m ³ (BOEL)
IOELV TWA (ppm)	1 ppm
Notes	Skin (Substantial contribution to the total body burden via dermal exposure possible)
Regulatory reference	DIRECTIVE (EU) 2019/130 (amending Directive 2004/37/EC)

EU - Biological limit values

Local name	Benzene
European BLV	28 µg/l Parameter: benzene - Medium: blood - Sampling time: immediately end of shift 46 µg/g creatinine Parameter: phenylmercapturic - Medium: urine - Sampling time: end of exposure/shift
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs

hexane (110-54-3)

EU - Occupational Exposure Limits

Local name	n-Hexane
IOELV TWA (mg/m ³)	72 mg/m ³
IOELV TWA (ppm)	20 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

Toluene (108-88-3)

EU - Occupational Exposure Limits

Local name	Toluene
IOELV TWA (mg/m ³)	192 mg/m ³
IOELV TWA (ppm)	50 ppm
IOELV STEL (mg/m ³)	384 mg/m ³
IOELV STEL (ppm)	100 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Naphtha

Safety Data Sheet

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

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless. Yellow.
Odour	: Petroleum.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < -60 °C
Freezing point	: No data available
Boiling point	: -88 – 260 °C Atm. press.: 101,325 kPa
Flash point	: 0 – 21 °C Atm. press.: 101,325 other:kPa (assumed). Pressure not stipulated in the citation
Auto-ignition temperature	: 280 – 470 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: ≤ 240 kPa Temp.: 37,8 °C
Relative vapour density at 20 °C	: 3.8 Source: UNI. AKRON
Relative density	: 0.62 – 0.88 Type: 'relative density' Temp.: 15 °C
Solubility	: Insoluble in water.
Partition coefficient n-octanol/water (Log Pow)	: 2.1 – 6 Source: IUCLID
Viscosity, kinematic	: < 7 mm ² /s Temp.: 'other:37.8°C' Parameter: 'kinematic viscosity (in mm ² /s)'
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Lower explosive limit (LEL)	: 1.4 vol %
Upper explosive limit (UEL)	: 7.6 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable liquid and vapour.

Naphtha

Safety Data Sheet

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

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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

Naphtha (64742-89-8)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
---------------	--

Benzene (71-43-2)

LD50 oral rat	> 2000 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 8260 mg/kg Source: ECHA
LD50 dermal	> 9.4 ml/kg (21 CFR 191.10, 24 h, Guinea pig, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	43.767 mg/l air Animal: rat, Animal sex: female, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), 95% CL: 41690 - 45939
LC50 Inhalation - Rat [ppm]	13700 ppm (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Female, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat (Vapours)	43.8 mg/l Source: ECHA

hexane (110-54-3)

LD50 oral rat	24 ml/kg Source: ECHA
LD50 dermal rat	> 2000 mg/kg Source: ECHA
LD50 dermal rabbit	> 3350 mg/kg bodyweight (Equivalent or similar to OECD 402, 4 h, Rabbit, Male, Read-across, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 17.6 mg/l air (Equivalent or similar to OECD 403, 24 h, Rat, Male, Experimental value, Inhalation (vapours))

Toluene (108-88-3)

LD50 oral rat	5580 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: EU Method B.1 (Acute Toxicity (Oral)), 95% CL: 5300 - 5910
LD50 dermal rabbit	> 5000 mg/kg bodyweight Animal: rabbit, Animal sex: male, 95% CL: 9,63 - 20,77

Naphtha

Safety Data Sheet

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

LC50 Inhalation - Rat	28.1 mg/l air (Equivalent or similar to OECD 403, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours))
LC50 Inhalation - Rat (Vapours)	> 20 mg/l Source: ECHA

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.

Benzene (71-43-2)

IARC group	1 - Carcinogenic to humans
------------	----------------------------

Toluene (108-88-3)

IARC group	3 - Not classifiable
------------	----------------------

Reproductive toxicity	: Suspected of damaging fertility.
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified

Benzene (71-43-2)

NOAEL (oral, rat, 90 days)	100 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	0.096 mg/l air Animal: rat, Guideline: OECD Guideline 412 (Subacute Inhalation Toxicity: 28-Day Study), Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Toluene (108-88-3)

LOAEL (oral, rat, 90 days)	1250 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight Animal: rat, Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEC (inhalation, rat, vapour, 90 days)	2.355 mg/l air Animal: rat, Guideline: EU Method B.29 (Sub-Chronic Inhalation Toxicity:90-Day Study)

Aspiration hazard	: May be fatal if swallowed and enters airways.
-------------------	---

Naphtha (64742-89-8)

Viscosity, kinematic	< 7 mm ² /s Temp.: 'other:37.8°C' Parameter: 'kinematic viscosity (in mm ² /s)'
----------------------	---

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. Toxic to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Toxic to aquatic life with long lasting effects.
Not rapidly degradable	

Naphtha

Safety Data Sheet

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

Naphtha (64742-89-8)

EC50 72h algae (1)	6.5 mg/l Source: IUCLID
--------------------	-------------------------

Benzene (71-43-2)

LC50 fish 1	5.3 mg/l Source: ECHA
EC50 Daphnia 1	10 mg/l Source: OECD ECHA
EC50 72h algae (1)	32 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h algae (2)	100 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 (algae)	100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

hexane (110-54-3)

LC50 fish 1	> 1 mg/l Source: ECHA
-------------	-----------------------

Toluene (108-88-3)

LC50 fish 1	5.5 mg/l Test organisms (species): Oncorhynchus kisutch
LOEC (chronic)	2.76 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.74 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC chronic fish	1.39 mg/l Test organisms (species): Oncorhynchus kisutch Duration: '40 d'

12.2. Persistence and degradability

Benzene (71-43-2)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.18 g O ₂ /g substance
Chemical oxygen demand (COD)	2.15 g O ₂ /g substance
ThOD	3.1 g O ₂ /g substance
BOD (% of ThOD)	0.7

hexane (110-54-3)

Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
ThOD	3.52 g O ₂ /g substance

Toluene (108-88-3)

Persistence and degradability	Readily biodegradable in water.
Biochemical oxygen demand (BOD)	2.15 g O ₂ /g substance
Chemical oxygen demand (COD)	2.52 g O ₂ /g substance
ThOD	3.13 g O ₂ /g substance
BOD (% of ThOD)	0.69

12.3. Bioaccumulative potential

Naphtha (64742-89-8)

Partition coefficient n-octanol/water (Log Pow)	2.1 – 6 Source: IUCLID
---	------------------------

Naphtha

Safety Data Sheet

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

Benzene (71-43-2)

BCF fish 1	< 10 (OECD 305: Bioconcentration: Flow-Through Fish Test, 3 day(s), Leuciscus idus, Flow-through system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.13 Source: HSDB, ChemIDplus, IPCS
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

hexane (110-54-3)

BCF fish 1	501.187 (Other, Pimephales promelas, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.9 Source: ICSC
Bioaccumulative potential	Potential for bioaccumulation ($500 \leq \text{BCF} \leq 5000$).

Toluene (108-88-3)

BCF fish 1	90 (72 h, Leuciscus idus, Static system, Fresh water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	2.73 Source: HSDB
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

Benzene (71-43-2)

Mobility in soil	134.1 Source: ECHA
Surface tension	0.029 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	2.13 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

hexane (110-54-3)

Mobility in soil	2187.76 Source: ECHA
Surface tension	17.89 mN/m (25 °C, 1 g/l)
Partition coefficient n-octanol/water (Log Koc)	3.34 (log Koc, QSAR)
Ecology - soil	Low potential for mobility in soil.

Toluene (108-88-3)

Surface tension	27.73 N/m (25 °C, 0.05 %)
Ecology - soil	Low potential for adsorption in soil.

12.5. Results of PBT and vPvB assessment

Naphtha (64742-89-8)

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

Naphtha

Safety Data Sheet

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

Component

Solvent naphtha (petroleum), light aliph.; Low boiling point naphtha; [A complex combination of hydrocarbons obtained from the distillation of crude oil or natural gasoline. It consists predominantly of saturated hydrocarbons having carbon numbers predominantly in the range of C5 through C10 and boiling in the range of approximately 35°C to 160°C (95°F to 320°F).] (64742-89-8)	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/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
hexane (110-54-3)	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
Toluene (108-88-3)	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

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals.
Additional information	: Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997. Flammable vapours may accumulate in the container.
European List of Waste (LoW) code	: 13 07 02* - petrol 15 01 10* - packaging containing residues of or contaminated by dangerous substances

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
UN 1203	UN 1203	UN 1203	UN 1203	UN 1203
14.2. UN proper shipping name				
MOTOR SPIRIT/GASOLINE/PETROL	GASOLINE	Gasoline	GASOLINE	GASOLINE
Transport document description				
UN 1203 MOTOR SPIRIT/GASOLINE/PETROL, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS	UN 1203 GASOLINE, 3, II, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS	UN 1203 Gasoline, 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1203 GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS	UN 1203 GASOLINE, 3, II, ENVIRONMENTALLY HAZARDOUS

Naphtha

Safety Data Sheet

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

14.3. Transport hazard class(es)

3	3	3	3	3

14.4. Packing group

II	II	II	II	II
----	----	----	----	----

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)	: 243, 534, 664
Limited quantities (ADR)	: 1I
Excepted quantities (ADR)	: E2
Packing instructions (ADR)	: P001, IBC02, R001
Special packing provisions (ADR)	: BB2
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1
Tank code (ADR)	: LGBF
Tank special provisions (ADR)	: TU9
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2, S20
Hazard identification number (Kemler No.)	: 33
Orange plates	:

Tunnel restriction code (ADR) : D/E

Transport by sea

Special provisions (IMDG)	: 243
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-E
Stowage category (IMDG)	: E
Properties and observations (IMDG)	: Immiscible with water.

Air transport

PCA Excepted quantities (IATA)	: E2
PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L

Naphtha

Safety Data Sheet

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

Special provisions (IATA)	: A100
ERG code (IATA)	: 3H
Inland waterway transport	
Classification code (ADN)	: F1
Special provisions (ADN)	: 243, 534
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: F1
Special provisions (RID)	: 243, 534
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Special packing provisions (RID)	: BB2
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Special provisions for RID tanks (RID)	: TU9
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

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

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

Reference code	Applicable on	Entry title or description
5.	Benzene	Benzene
28.	Naphtha ; Benzene	Substances which are classified as carcinogen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 1 or Appendix 2, respectively.
29.	Naphtha ; Benzene	Substances which are classified as germ cell mutagen category 1A or 1B in Part 3 of Annex VI to Regulation (EC) No 1272/2008 and are listed in Appendix 3 or Appendix 4, respectively.
3(a)	Naphtha ; Benzene ; hexane ; Toluene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	Naphtha ; Benzene ; hexane ; Toluene	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
3(c)	Naphtha ; hexane	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard class 4.1

Naphtha

Safety Data Sheet

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

40.	Naphtha ; Benzene ; hexane ; Toluene	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.
48.	Toluene	Toluene
72.	Benzene	The substances listed in column 1 of the Table in Appendix 12

Naphtha is not on the REACH Candidate List

Naphtha is not on the REACH Annex XIV List

Naphtha is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Naphtha is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes:

Version	Date of change	Section	Comments
2.1	08/02/2011	All	Version was created according to Regulation (EC) No 1272/2008 (Regulation CLP) & 453/2010.
2.2	17/05/2016	Title, 1.3	Company name of the Supplier was changed
3.0	23/04/2018	All	SDS has been corrected in according to new contact information, data of Registration dossier, Chemical Safety Report, and new Transport information.
4.0	29/12/2020	All	All sections were updated, the document format was changed Company name of the Supplier was changed

Abbreviations and acronyms:

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
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration

Naphtha

Safety Data Sheet

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

LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:

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
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 RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H224	Extremely flammable liquid and vapour.
H225	Highly flammable liquid and vapour.
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.
H361d	Suspected of damaging the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.

Naphtha

Safety Data Sheet

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

H411	Toxic to aquatic life with long lasting effects.
------	--

Full text of use descriptors	
ERC1	Manufacture of the substance
ERC6a	Use of intermediate
PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC15	Use as laboratory reagent
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
PROC28	Manual maintenance (cleaning and repair) of machinery
PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
SU8	Manufacture of bulk, large scale chemicals (including petroleum products)
SU9	Manufacture of fine chemicals

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.

Naphtha

Safety Data Sheet

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

Annex to the safety data sheet

Identified Uses	Es N°	Short title	Page
Manufacture of substance	1		20
Use of substance as intermediate	2		28

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

1. ES 1 - Manufacture; Manufacture of substance

1.1. Title section

Manufacture of substance

ES Ref.: ES 1 ES Type: Worker	Company ES code: CS 1 Association ref code: M-3
----------------------------------	--

Worker		Use descriptors
CS 1	General exposures	PROC1
CS 2	General exposures	PROC2
CS 3	General exposures; Batch process	PROC3
CS 4	Use as laboratory reagent	PROC15
CS 5	Bulk transfers; Closed systems; Loading and unloading	PROC8a
CS 6	Equipment cleaning and maintenance	PROC8b
CS 7	Storage	PROC1
CS 8	Storage	PROC2

Assessment method	TRA Workers 3.0
-------------------	-----------------

1.2. Conditions of use affecting exposure

1.2.1. Control of worker exposure: General exposures (PROC1)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
-------	--

Product (article) characteristics	
Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure	
	≤ 8 h/day

Technical and organisational conditions and measures	
Local exhaust ventilation	Effectiveness. 0%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation	
Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 800 %

1.2.2. Control of worker exposure: General exposures (PROC2)

PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
-------	--

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 800 %

1.2.3. Control of worker exposure: General exposures; Batch process (PROC3)

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
-------	--

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 800 %

1.2.4. Control of worker exposure: Use as laboratory reagent (PROC15)

PROC15	Use as laboratory reagent
--------	---------------------------

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	
Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure [E12]	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

1.2.5. Control of worker exposure: Bulk transfers; Closed systems; Loading and unloading (PROC8a)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
--------	---

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Product (article) characteristics	
Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure	
	≤ 8 h/day

Technical and organisational conditions and measures	
Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation	
Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure	
Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

1.2.6. Control of worker exposure: Equipment cleaning and maintenance (PROC8b)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
--------	---

Product (article) characteristics	
Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure	
	≤ 8 h/day

Technical and organisational conditions and measures	
Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation	
Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 90%
Protective gloves	Effectiveness. 90%

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

1.2.7. Control of worker exposure: Storage (PROC1)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
-------	--

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

1.2.8. Control of worker exposure: Storage (PROC2)

PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions
-------	--

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

1.3. Exposure estimation and reference to its source

1.3.1. Worker exposure General exposures (PROC1)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.00163 mg/m ³	< 0.01	
Sum RCR - Long-term - systemic effects		< 0.01	
Inhalation - Acute - systemic effects	0.167 mg/m ³	< 0.01	
Sum RCR - Acute - systemic effects		< 0.01	

1.3.2. Worker exposure General exposures (PROC2)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.000407 mg/m ³	< 0.012	
Sum RCR - Long-term - systemic effects		< 0.012	
Inhalation - Acute - systemic effects	41.67 mg/m ³	0.039	
Sum RCR - Acute - systemic effects		0.039	

1.3.3. Worker exposure General exposures; Batch process (PROC3)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.814 mg/m ³	0.025	

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Sum RCR - Long-term - systemic effects		0.025	
Inhalation - Acute - systemic effects	83.77 mg/m ³	0.078	
Sum RCR - Acute - systemic effects		0.078	

1.3.4. Worker exposure Use as laboratory reagent (PROC15)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.814 mg/m ³	0.025	
Sum RCR - Long-term - systemic effects		0.025	
Inhalation - Acute - systemic effects	83.33 mg/m ³	0.078	
Sum RCR - Acute - systemic effects		0.078	

1.3.5. Worker exposure Bulk transfers; Closed systems; Loading and unloading (PROC8a)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.069 mg/m ³	0.037	
Sum RCR - Long-term - systemic effects		0.037	
Inhalation - Acute - systemic effects	125 mg/m ³	0.117	
Sum RCR - Acute - systemic effects		0.117	

1.3.6. Worker exposure Equipment cleaning and maintenance (PROC8b)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.244 mg/m ³	< 0.01	
Sum RCR - Long-term - systemic effects		< 0.01	
Inhalation - Acute - systemic effects	41.67 mg/m ³	0.039	
Sum RCR - Acute - systemic effects		0.039	

1.3.7. Worker exposure Storage (PROC1)

Information for contributing exposure scenario			
--	--	--	--

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.042 mg/m ³	< 0.01	
Sum RCR - Long-term - systemic effects		< 0.01	
Inhalation - Acute - systemic effects	0.167 mg/m ³	< 0.01	
Sum RCR - Acute - systemic effects		< 0.01	

1.3.8. Worker exposure Storage (PROC2)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	0.407 mg/m ³	< 0.012	
Sum RCR - Long-term - systemic effects		< 0.012	
Inhalation - Acute - systemic effects	41.67 mg/m ³	0.039	
Sum RCR - Acute - systemic effects		0.039	

1.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

1.4.1. Environment

No data available

1.4.2. Health

No data available

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

2. ES 2 - Industrial; Use of substance as intermediate

2.1. Title section

Use of substance as intermediate

ES Ref.: ES 2 ES Type: Worker	Association ref code: IW-8
----------------------------------	----------------------------

Worker		Use descriptors
CS 1	General exposures; Closed systems	PROC1, PROC2
CS 2	General exposures; Batch process; Closed systems	PROC3
CS 3	Use as laboratory reagent	PROC15
CS 4	Bulk transfers; Closed systems; Loading and unloading	PROC8b
CS 5	Equipment cleaning and maintenance	PROC8a, PROC28
CS 6	Storage	PROC1, PROC2

Processes, tasks, activities covered	Use of substance as an intermediate within closed or contained systems (not related to Strictly Controlled Conditions). Includes incidental exposures during recycling/ recovery, material transfers, storage, sampling, associated laboratory activities, maintenance and loading (including marine vessel/barge, road/rail car and bulk container).
Assessment method	TRA Workers 3.0

2.2. Conditions of use affecting exposure

2.2.1. Control of worker exposure: General exposures; Closed systems (PROC1, PROC2)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation. None	Effectiveness. 0%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

2.2.2. Control of worker exposure: General exposures; Batch process; Closed systems (PROC3)

PROC3	Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition
-------	--

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation. None	Effectiveness. 0%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 800 %

2.2.3. Control of worker exposure: Use as laboratory reagent (PROC15)

PROC15	Use as laboratory reagent
--------	---------------------------

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation. None	Effectiveness. 0%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	
Handle within a fume cupboard or implement suitable equivalent methods to minimise exposure [E12]	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

2.2.4. Control of worker exposure: Bulk transfers; Closed systems; Loading and unloading (PROC8b)

PROC8b	Transfer of substance or mixture (charging and discharging) at dedicated facilities
--------	---

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 95%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 0%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Temperature, °C	≤ 20 %
-----------------	--------

2.2.5. Control of worker exposure: Equipment cleaning and maintenance (PROC8a, PROC28)

PROC8a	Transfer of substance or mixture (charging and discharging) at non-dedicated facilities
PROC28	Manual maintenance (cleaning and repair) of machinery

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness. 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness. 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness. 90%
Protective gloves	Effectiveness. 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

2.2.6. Control of worker exposure: Storage (PROC1, PROC2)

PROC1	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions
PROC2	Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions

Product (article) characteristics

Physical form of product	Liquid
Concentration of substance in product	100 %
Vapour pressure	≤ 240 kPa
Viscosity, kinematic	< 7 mm ² /s

Amount used (or contained in articles), frequency and duration of use/exposure

	≤ 8 h/day
--	-----------

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Technical and organisational conditions and measures

Local exhaust ventilation	Effectiveness: 90%
Provide a basic standard of general ventilation (1 to 3 air changes per hour).	Effectiveness: 0%
Occupational health and safety management system: advanced	

Conditions and measures related to personal protection, hygiene and health evaluation

Respiratory protection not applicable [68 mod, 142 mod]	Effectiveness: 0%
Protective gloves	Effectiveness: 90%

Other conditions affecting workers exposure

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions	
Indoor use [OOC2]	
Temperature, °C	≤ 20 %

2.3. Exposure estimation and reference to its source

2.3.1. Worker exposure General exposures; Closed systems (PROC1, PROC2)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	104.2 mg/m ³	0.124	
Sum RCR - Long-term - systemic effects		0.124	
Inhalation - Acute - systemic effects	416.7 mg/m ³	0.324	
Sum RCR - Acute - systemic effects		0.324	

2.3.2. Worker exposure General exposures; Batch process; Closed systems (PROC3)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	208.3 mg/m ³	0.249	
Sum RCR - Long-term - systemic effects		0.249	
Inhalation - Acute - systemic effects	833.3 mg/m ³	0.781	
Sum RCR - Acute - systemic effects		0.781	

2.3.3. Worker exposure Use as laboratory reagent (PROC15)

Information for contributing exposure scenario

Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	208.3 mg/m ³	0.249	

Naphtha

Annex to the safety data sheet: Exposure scenario

CAS-No.: 64742-89-8 Product form: Substance Physical state: Liquid Substance type: UVCB

Sum RCR - Long-term - systemic effects		0.249	
Inhalation - Acute - systemic effects	833.3 mg/m ³	0.648	
Sum RCR - Acute - systemic effects		0.648	

2.3.4. Worker exposure Bulk transfers; Closed systems; Loading and unloading (PROC8b)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	31.25 mg/m ³	0.037	
Sum RCR - Long-term - systemic effects		0.037	
Inhalation - Acute - systemic effects	125 mg/m ³	0.117	
Sum RCR - Acute - systemic effects		0.117	

2.3.5. Worker exposure Equipment cleaning and maintenance (PROC8a, PROC28)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	104.2 mg/m ³	0.124	
Sum RCR - Long-term - systemic effects		0.124	
Inhalation - Acute - systemic effects	416.7 mg/m ³	0.391	
Sum RCR - Acute - systemic effects		0.391	

2.3.6. Worker exposure Storage (PROC1, PROC2)

Information for contributing exposure scenario			
Route of exposure and type of effects	Exposure estimate	RCR	Method
Inhalation - Long-term - systemic effects	104.2 mg/m ³	0.124	
Sum RCR - Long-term - systemic effects		0.124	
Inhalation - Acute - systemic effects	416.7 mg/m ³	0.391	
Sum RCR - Acute - systemic effects		0.391	

2.4. Guidance to Downstream User to evaluate whether he works inside the boundaries set by the ES

2.4.1. Environment

No data available

2.4.2. Health

No data available