

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Issue date: 11/15/2021 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : PRO 60

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Protective coating

1.3. Supplier

Manufacturer

NGNT Material Sciences SA Chem. du Mont-de-Brez 2

1405 Pomy Switzerland

T +41 (0)58 300 1080

Importer

NGNT Material Sciences SA

Rockefeller Center - Concourse- Suite 2002

610 Fifth Avenue New York NY 10185 United States

T +1 917 522 2111 (Hours: 10 AM - 5 PM)

1.4. Emergency telephone number

Emergency number : Phone number (US): 917 522 2111; Hours - 9 AM - 5 PM

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids, Category 3 Skin corrosion/irritation, Category 2

Serious eye damage/eye irritation, Category 2

Specific target organ toxicity — Single exposure, Category 3, Narcosis

Aspiration hazard, Category 1

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

2.2. GHS Label elements, including precautionary statements

GHS US labelling

Hazard pictograms (GHS US)







Signal word (GHS US) : Danger

Hazard statements (GHS US) : Flammable liquid and vapour.

May be fatal if swallowed and enters airways.

Causes skin irritation.
Causes serious eye irritation.

May cause drowsiness or dizziness.

Precautionary statements (GHS US) : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Wear face protection, eye protection, protective gloves. If swallowed: Immediately call a POISON CENTER.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Do NOT induce vomiting.

Store in a well-ventilated place. Keep cool.

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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 which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	CAS-No.: 64742-48-9	<70	Flam. Liq. 3 STOT SE 3 Asp. Tox. 1
Xylene	CAS-No.: 1330-20-7	<20	Flam. Liq. 3 Acute Tox. 4 (Dermal) Acute Tox. 4 (Inhalation) Skin Irrit. 2
di-n-butyl ether	CAS-No.: 142-96-1	2 <x<6< td=""><td>Flam. Liq. 3 Skin Irrit. 2 Eye Irrit. 2 STOT SE 3 Aquatic Chronic 3</td></x<6<>	Flam. Liq. 3 Skin Irrit. 2 Eye Irrit. 2 STOT SE 3 Aquatic Chronic 3
Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).]		<5	Asp. Tox. 1
Polysilazane	CAS-No.: 90387-00-1	0,5 <x<1,3< td=""><td>Water-react. 2 Skin Corr. 1B Eye Dam. 1</td></x<1,3<>	Water-react. 2 Skin Corr. 1B Eye Dam. 1
n-butyl acetate	CAS-No.: 123-86-4	0,1≤x<0,2	Flam. Liq. 3 STOT SE 3

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general

: Call a physician immediately.

First-aid measures after inhalation First-aid measures after skin contact : Remove person to fresh air and keep comfortable for breathing.

: Rinse skin with water/shower. Take off immediately all contaminated clothing. If skin irritation occurs: Get medical advice/attention.

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First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Do not induce vomiting. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

Potential adverse human health effects and

symptoms

: Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. May be

fatal if swallowed and enters airways.May cause drowsiness or dizziness.

Symptoms/effects : May cause di Symptoms/effects after skin contact : Irritation. Symptoms/effects after eye contact : Eye irritation.

Symptoms/effects after ingestion : Risk of lung oedema.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically. Based on the assessment of risk of hazardous chemical agents, the competent person will settle the appropriate medical surveillance protocol, in accordance with the national legislation, in order to protect the health status of the workers.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

Fire hazard : Flammable liquid and vapour. Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing

apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing vapours,

fume. Avoid contact with skin and eyes.

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".

6.2. Environmental precautions

Avoid release to the environment. Do not let the product enter drainage system, surface and ground-water or soil. Contact local authorities in case of environmental release. Do not empty into drains.

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.

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6.4. Reference to other sections

For further information refer also to sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : 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. Use only outdoors or in a well-

ventilated area. Avoid breathing vapours. Avoid contact with skin and eyes.

Hygiene measures 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 materials Strong oxidizing agents.

Heat and ignition sources : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Storage area : Store in a dry, well ventilated place away from sources of heat, ignition and direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

No additional information available

Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)

No additional information available

Xylene (1330-20-7)

USA - ACGIH - Occupational Exposure Limits

Local name	Xylene, mixed isomers (Dimethylbenzene)
ACGIH OEL TWA [ppm]	100 ppm
ACGIH OEL STEL [ppm]	150 ppm
Remark (ACGIH)	TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
Regulatory reference	ACGIH 2021
USA - ACGIH - Biological Exposure Indices	

Local name	XYLENES (Technical or commercial grade)
BEI	1.5 g/g creatinine Parameter: Methylhippuric acids - Medium: urine - Sampling time: End of shift
Regulatory reference	ACGIH 2021

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di-n-butyl ether (142-96-1)

No additional information available

Polysilazane (90387-00-1)

No additional information available

n-butyl acetate (123-86-4)

No additional information available

Monitoring methods

Monitoring methods

The measurement of substances in the workplace must be carried out with standardized methods (e.g. UNI EN 689:2019: Workplace atmospheres - Guide for assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy; UNI EN 482:2015: Workplace explosure - General requirements for the performance of procedures for the measurement of chemical agents) or, failing that, with appropriate methods.

8.2. Appropriate engineering controls

Appropriate engineering controls

: Ensure good ventilation of the work station. Appropriate risk management measures, that must be adopted at the workplace, have to be selected and applied, following the risks assessment carried out by the employer, in connection with his working activity. If the results of this evaluation show that the general and collective prevention measures are not sufficient to reduce the risk, and if you cannot prevent exposure to the mixture by other means, adequate personal protective equipment must be adopted, complying with the relevant technical national/international standards.

Environmental exposure controls

: Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Hand protection:

Protective gloves

Eye protection:

Wear protective tightly fitting glasse or protective visor (EN 166).

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : Transparent
Odour
Odour threshold : No data available
pH : Neutral
Melting point : Not applicable

Freezing point : No data available Boiling point : No data available

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Flash point : 45 °C

Relative evaporation rate (butylacetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapour pressure : No data available Relative vapour density at 20 °C : No data available Relative density : No data available No data available Solubility Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature No data available No data available Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic Explosive limits : No data available Explosive properties : No data available Oxidising properties : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Flammable liquid and vapour.

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

Strong oxidizing agents.

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 (Based on available data, the classification criteria are not met)

Acute toxicity (dermal) : Not classified (Based on available data, the classification criteria are not met)

Acute toxicity (inhalation) : Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)	
LD50 oral rat > 5000 mg/kg Read-across	
LD50 dermal rat	> 2000 mg/kg bodyweight Read-across
LC50 Inhalation - Rat > 5000 mg/m³ Read-across	

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treating a petroleum fraction with hydroger	t; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by in the presence of a catalyst. It consists of hydrocarbons having carbon numbers C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).]
LD50 oral rat	> 5000 mg/kg in male and female rats for kerosine (similar to OECD 420)
LD50 dermal rabbit	> 2000 mg/kg in male and female rabbits for kerosine (similar to OECD 402)
LC50 Inhalation - Rat	> 5.28 mg/l vapour in male and female rats for kerosine (similar to OECD 403)
Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg bodyweight
ATE US (oral)	3523 mg/kg bodyweight
ATE US (dermal)	1100 mg/kg bodyweight
ATE US (gases)	4500 ppmv/4h
ATE US (vapours)	11 mg/l/4h
ATE US (dust,mist)	1.5 mg/l/4h
Additional data	In animal studies xylene isomers (including mixed xylene) exhibit low acute toxicity by oral route with the reported LD50 values all exceeding 2000 mg/kg bw.
di-n-butyl ether (142-96-1)	
LD50 oral rat	7400 mg/kg bodyweight
LD50 dermal rabbit	7741 mg/kg bodyweight
ATE US (oral)	7400 mg/kg bodyweight
ATE US (dermal)	7741 mg/kg bodyweight
ATE US (vapours)	21600 mg/l/4h
Polysilazane (90387-00-1)	
LD50 oral rat	2500 mg/kg OECD Test Guideline 423
n-butyl acetate (123-86-4)	
LD50 oral rat	10760 mg/kg bodyweight
LD50 dermal rabbit	> 14112 mg/kg bodyweight
ATE US (oral)	10760 mg/kg bodyweight
Skin corrosion/irritation	: Causes skin irritation.
	Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics: several studies have been carried out on this group of substances; the results showed that this substance is not irritating to the skin
	Xylene: The available data indicate that mixed xylene should be considered to be irritating to skin.
	Dibutyl ether: the molecule is only very slightly irritating to the skin and the eyes of rabbits, as determined in GLP studies performed in accordance with OECD TG 404 and 405, respectively. All symptoms of irritation were completely reversible within 96 and 48 hours, respectively. In humans, a 15 minutes exposure towards 200 ppm (corresponding to 1066 mg/m³) dibutyl ether was reported to be sensory irritating to the eyes and the nose, but not to the throat. In a 28-day

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n-butyl acetate is not irritating

pH: Neutral

inhalation GLP study, performed according to standard guidelines, dibutyl ether at concentrations

of up to and including 1500 mg/m³ was not irritating to the respiratory tract of rats.

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Serious eye damage/irritation

: Causes serious eye irritation.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics are not irritating to the eyes (read across from supporting substances, test on rabbits).

Distillates (petroleum), hydrotreated light: kerosine was found to be non-irritating to rabbit eyes when exposed to 0.1 mL of test substance (OECD 405).

Dibutyl ether: the molecule is only very slightly irritating to the skin and the eyes of rabbits, as determined in GLP studies performed in accordance with OECD TG 404 and 405, respectively. All symptoms of irritation were completely reversible within 96 and 48 hours, respectively. In humans, a 15 minutes exposure towards 200 ppm (corresponding to 1066 mg/m³) dibutyl ether was reported to be sensory irritating to the eyes and the nose, but not to the throat. In a 28-day inhalation GLP study, performed according to standard guidelines, dibutyl ether at concentrations of up to and including 1500 mg/m³ was not irritating to the respiratory tract of rats.

n-butyl acetate is not irritating

pH: Neutral

Respiratory or skin sensitisation

Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics: there are studies on guinea pigs (read across from supporting substances) which show that the substance is not a skin sensitizer. Based on the skin sensitization tests, it is presumed that there is no respiratory sensitization potential (specific studies were not performed).

Distillates (petroleum), hydrotreated light: in animal assays (similar to OECD 406) for skin sensitisation, kerosines did not elicit a positive response.

Xylene is an unreactive chemical that would not be identified on the basis of chemical structure as being a potential skin sensitizer. In addition, there is no clinical evidence demonstrating that xylene causes skin sensitization in humans, even when tested in a very rigorous human predictive assay.

Dibutyl ether: the molecule was used as a solvent in an open epicutaneous skin sensitization test with 2,4 toluene diisocyanate. In this test, the dibutyl ether (administration volume 25 µI) solvent control showed no sensitizing properties to guinea pigs skin (Koschier et al, 1983)

N-butyl acetate resulted not a skin sensitizer in the mouse ear swelling test.

Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics: all the in vivo and in vitro studies were negative

Distillates (petroleum), hydrotreated light: there were no studiesthat described mutagenic or genotoxic effects of kerosine or jet fuels in humans. Because most of the experimental studies were negative and the data on various individual components of kerosines and jet fuels were negative, the weight of evidence from in vitro and in vivo mutagenic studies indicates that kerosine and jet fuels are likely not mutagens and are not classified as mutagens

Dibutyl ether: in vitro, the molecule was neither mutagenic in a bacterial test system (two tests, each performed according to OECD TG 471 (1983)) nor clastogenic in a mammalian test system (chromosomal aberration GLP test according to OECD TG 473 on human peripheral lymphocytes).

N-butyl acetate: all the tests performed were negative; the substance is not genotoxic.

: Not classified (Based on available data, the classification criteria are not met)

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics are highly unlikely to be carcinogenic

Distillates (petroleum), hydrotreated light: kerosine is not carcinogenic when animals are exposed via the oral or inhalation route.

Xylene: there is no evidence of carcinogenic activity

Xylene (1330-20-7)

Carcinogenicity

Germ cell mutagenicity

IARC group 3 - Not classifiable

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met)

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Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)			
NOAEL (animal/male, F0/P)	1000 mg/kg bodyweight 2-generation reproductive studies (OECD 416)		
Xylene (1330-20-7)			
Additional data	No adverse effects for reproduction were observed		
di-n-butyl ether (142-96-1)			
NOAEL (animal/male, F0/P)	300 mg/kg bodyweight		
n-butyl acetate (123-86-4)			
Additional data	N-butyl acetate did not show adverse effects on fertility and developmental toxicity		
STOT-single exposure :	May cause drowsiness or dizziness.		
Hydrocarbons, C9-C11, n-alkanes, isoalkanes	s, cyclics, < 2% aromatics (64742-48-9)		
STOT-single exposure	May cause drowsiness or dizziness.		
Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)			
NOAEL (oral, rat)	750 mg/kg bodyweight		
NOAEL (dermal, rat/rabbit)	≥ 495 mg/kg bodyweight		
NOAEC (inhalation, rat, vapour)	1 mg/l		
di-n-butyl ether (142-96-1)			
STOT-single exposure	May cause respiratory irritation.		
n-butyl acetate (123-86-4)			
STOT-single exposure	May cause drowsiness or dizziness.		
Additional data	n-butyl acetate may cause drowsiness or dizziness after inhalation (single exposure)		
STOT-repeated exposure :	Not classified (Based on available data, the classification criteria are not met)		
Hydrocarbons, C9-C11, n-alkanes, isoalkanes	s, cyclics, < 2% aromatics (64742-48-9)		
NOAEL (oral, rat, 90 days)	≥ 5000 mg/kg bodyweight/day		
di-n-butyl ether (142-96-1)			
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight		
LOAEC (inhalation, rat, vapour, 90 days)	3 mg/l air		
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight		
NOAEC (inhalation, rat, vapour, 90 days)	1 mg/l air		
n-butyl acetate (123-86-4)			
LOAEL (oral, rat, 90 days)	500 mg/kg bodyweight		
NOAEL (oral, rat, 90 days)	125 mg/kg bodyweight		
•	May be fatal if swallowed and enters airways. No data available		

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Potential adverse human health effects and : Causes skin irritation.

symptoms Causes serious eye irritation.

May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

Symptoms/effects May cause drowsiness or dizziness.

Symptoms/effects after skin contact Irritation. Eye irritation. Symptoms/effects after eye contact Symptoms/effects after ingestion : Risk of lung oedema.

SECTION 12: Ecological information

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Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)		
LC50 - Fish [1]	LL50 >1000 mg/L, Oncorhynchus mykiss	
EC50 - Crustacea [1]	LL50 >1000 mg/L, Daphnia magna	

Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers

NOELR =100 mg/L, Pseudokirchneriella subcapitata

predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8) 5 mg/LOECD Guideline 203 (Fish Acute Toxicity Test) I C50 - Figh [1]

	2 – 5 mg/l OECD Guideline 205 (Fish, Acute Toxicity Test)
EC50 - Crustacea [1]	1.4 mg/l OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
NOEC chronic crustacea	0.48 OECD Guideline 211 (Daphnia magna Reproduction Test)

I C50 - Fish [1]

NOEC chronic algae

LC50 - Fish [1]	2.6 mg/l Oncorhynchus mykiss (Rainbow trout)
NOEC chronic fish	> 1.3 mg/l Salmo gairdneri

di-n-butyl ether (142-96-1)

LC50 - Fish [1]	32.3 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	> 18.76 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	≈ 11.5 mg/l Pseudokirchneriella subcapitata
EC50 72h - Algae [2]	≈ 19.1 mg/l Pseudokirchneriella subcapitata
EC50 96h - Algae [1]	≈ 14.5 mg/l Pseudokirchneriella subcapitata
EC50 96h - Algae [2]	≈ 20.9 mg/l Pseudokirchneriella subcapitata

n-butyl acetate (123-86-4)

LC50 - Fish [1]	18 mg/l Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Daphnia magna (Water flea)
LOEC (chronic)	47.6 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	23.2 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l Daphnia magna; read across: isobutyl acetate
NOEC chronic algae	196 mg/l Desmodesmus subspicatus

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12.2. Persistence and degradability

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)				
Persistence and degradability readily biodegradable.				
Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)				
Persistence and degradability	Kerosines are readily to inherently biodegradable.			
Xylene (1330-20-7)				
Persistence and degradability	readily biodegradable.			
di-n-butyl ether (142-96-1)				
Persistence and degradability	Limited biodegradation of dibutylether (<5% in 28 days) was observed in OECD 301 ready biodegradation tests.			
n-butyl acetate (123-86-4)				

12.3. Bioaccumulative potential

Persistence and degradability

Xylene (1330-20-7)		
Bioaccumulative potential Low bioaccumulation potential.		
n-butyl acetate (123-86-4)		
Bioaccumulative potential Low bioaccumulation potential.		

readily biodegradable.

12.4. Mobility in soil

n-butyl acetate (123-86-4)	
Mobility in soil	n-butyl acetate is expected to have a very high mobility in soil (Koc value of 19, estimated)

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Regional legislation (waste) : Disposal must be done according to official regulations.

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

Additional information : Flammable vapours may accumulate in the container.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / RID

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ADR	IMDG	IATA	RID		
14.1. UN number or ID number					
UN 1139	UN 1139	UN 1139	UN 1139		
14.2. UN proper shipping name					
COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics)	COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics)	Coating solution (Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics)	COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics)		
Transport document description					
UN 1139 COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics), 3, III, (D/E)	UN 1139 COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics), 3, III	UN 1139 Coating solution (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics), 3, III	UN 1139 COATING SOLUTION (Hydrocarbons, C9-C11, n- alkanes, isoalkanes, cyclics, < 2% aromatics), 3, III		
14.3. Transport hazard class(e	es)				
3	3	3	3		
3	3	3	3		
14.4. Packing group					
III	III	III	III		
14.5. Environmental hazards					
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No		
No supplementary information available					

14.6. Special precautions for user

Overland transport

Classification code (ADR) : F1
Limited quantities (ADR) : 5I
Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Mixed packing provisions (ADR) : MP19
Portable tank and bulk container instructions (ADR) : T2
Portable tank and bulk container special provisions : TP1

(ADR)

Tank code (ADR) : LGBF
Vehicle for tank carriage : FL
Transport category (ADR) : 3
Special provisions for carriage - Packages (ADR) : V12
Special provisions for carriage - Operation (ADR) : S2
Hazard identification number (Kemler No.) : 30
Orange plates : I

1

30 1139

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

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Transport by sea

Special provisions (IMDG): 955Limited quantities (IMDG): 5 LExcepted quantities (IMDG): E1Packing instructions (IMDG): P001, LP01

 IBC packing instructions (IMDG)
 : IBC03

 Tank instructions (IMDG)
 : T2

 Tank special provisions (IMDG)
 : TP1

 EmS-No. (Fire)
 : F-E

 EmS-No. (Spillage)
 : S-E

 Stowage category (IMDG)
 : A

Properties and observations (IMDG) : Miscibility with water depends upon the composition.

Air transport

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

Rail transport

Classification code (RID) : F1
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1

Packing instructions (RID) : P001, IBC03, LP01, R001

Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T2
Portable tank and bulk container special provisions : TP1

(RID)

Tank codes for RID tanks (RID) : LGBF
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE4
Hazard identification number (RID) : 30

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Commercial status of components according to the United States Environmental Protection Agency's Toxic Substances Control Act (TSCA):

Name	CAS-No.	Listing	Commercial status	Flags
Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics	64742-48-9	Present	Active	

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Name	CAS-No.	Listing	Commercial status	Flags
Distillates (petroleum), hydro- treated light; Kerosine—unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).]		Present	Active	
Xylene	1330-20-7	Present	Active	
di-n-butyl ether	142-96-1	Present	Active	
Polysilazane	90387-00-1	Present	-	
n-butyl acetate	123-86-4	Present	Active	

Xylene (1330-20-7)

Subject to reporting requirements of United States SARA Section 313

Listed on EPA Hazardous Air Pollutant (HAPS)

CERCLA RQ 100 lb

n-butyl acetate (123-86-4)

Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ 5000 lb

15.2. International regulations

CANADA

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

Listed on the Canadian DSL (Domestic Substances List)

Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)

Listed on the Canadian DSL (Domestic Substances List)

Xylene (1330-20-7)

Listed on the Canadian DSL (Domestic Substances List)

di-n-butyl ether (142-96-1)

Listed on the Canadian DSL (Domestic Substances List)

Polysilazane (90387-00-1)

Not listed on the Canadian DSL (Domestic Substances List)/NDSL (Non-Domestic Substances List)

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n-butyl acetate (123-86-4)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Hydrocarbons, C9-C11, n-alkanes, isoalkanes, cyclics, < 2% aromatics (64742-48-9)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Distillates (petroleum), hydro- treated light; Kerosine— unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 °C to 290 °C (302 °F to 554 °F).] (64742-47-8)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Xylene (1330-20-7)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

di-n-butyl ether (142-96-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

n-butyl acetate (123-86-4)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

No additional information available

SECTION 16: Other information

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Data sources : ECHA Database. SDS suppliers.

Training advice : Follow National requirements to ensure protection of human health and the environment.

Safety Data Sheet (SDS), USA

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.

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