



Safety data sheet

According to regulation (EC) 1907/2006, 453/2010

Revision date: October 2014

Product name: PU78 A

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

1.1 Product identifier

Trade name: PU78 A

1.2 Relevant identified uses of the substance or mixture and uses advised against Use of the Substance/Mixture: Casting resin

1.3 Details of the supplier of the safety data sheet

Company: Esprit Composite
22, Rue Gassendi
F-75014 Paris
France
Telephone: Tel: +33 1 4044 4797
Telefax: Fax: +33 1 4044 4951
Website: www.espritcomposite.com
E-mail: contact@espritcomposite.fr

1.4 Emergency telephone number:

NHS Direct England or Wales: +44 0845 4647
NHS 24 Scotland (UK only): +44 08454 242424

SECTION 2. Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Eye irritation, Category 2

Aspiration hazard, Category 1

Chronic aquatic toxicity, Category 4

Classification (67/548/EEC, 1999/45/EC)

Harmful

Irritant

Dangerous for the environment

H319: Causes serious eye irritation.
H304: May be fatal if swallowed and enters airways.
H413: May cause long lasting harmful effects to aquatic life.

R65: Harmful: may cause lung damage if swallowed.
R36: Irritating to eyes.
R53: May cause long-term adverse effects in the aquatic environment.

2.2 Label elements

Labeling (REGULATION (EC) No 1272/2008)

Hazard pictograms:



Signal word:

Hazard statements:

Danger

H304 May be fatal if swallowed and enters airways.
H319 Causes serious eye irritation.
H413 May cause long lasting harmful effects to aquatic life.

Precautionary statements:

Prevention:

P273 Avoid release to the environment.
P280 Wear eye protection/ face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P331 Do NOT induce vomiting.



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P337 + P313 If eye irritation persists: Get medical advice/attention.

Disposal:

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

Hazardous components which must be listed on the label:

- bis(isopropyl)naphthalene

2.3 Other hazards

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

SECTION 3. Composition/information on ingredients

3.2 Mixtures

Chemical nature:

Polyether/polyester polyol based mixture

Hazardous components:

Chemical name	CAS No. EC No. Registration number	Classification (67/548/CEE)	Classification (Regulation (EC) No 1272/2008)	Concentration (%)
Polyether Polyol	25214-63-5 01-2119471485- 32-0002	Xi; R36	Eye Irrit. 2; H319	>= 30 - < 50
bis(isopropyl)naphthalene	38640-62-9 254-052-6	R53	Asp. Tox. 1; H304 Aquatic Chronic 4; H413	>= 25 - < 30
distillates (petroleum), hydrotreated light	64742-47-8 265-149-8	Xn; R65 R66	Asp. Tox. 1; H304	>= 10 - < 12,5
Low boiling point naphtha - unspecified	64742-95-6 265-199-0 01-2119455851- 35	Xn; R65 N; R51/53 R10 R67 R66 Xi; R37	STOT SE 3; H336, H335 Asp. Tox. 1; H304 Aquatic Chronic 2; H411 Flam. Liq. 3; H226	>= 0,25 - < 0,5

For explanation of abbreviations see section 16.

SECTION 4. First aid measures:

4.1 Description of first aid measures

General advice:

Keep warm and in a quiet place.

Show this safety data sheet to the doctor in attendance.

Take off all contaminated clothing immediately.

Move to fresh air.

Keep patient warm and at rest.

If symptoms persist, call a physician.

In case of skin contact:

Wash off immediately with soap and plenty of water.

Do NOT use solvents or thinners.

If on clothes, remove clothes.

If skin irritation persists, call a physician.

In case of eye contact:

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.



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If swallowed:

If eye irritation persists, consult a specialist.
If easy to do, remove contact lens, if worn.
Keep at rest.
Do not induce vomiting without medical advice.
Keep respiratory tract clear.
If symptoms persist, call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: irritant effects
Lachrymation
sensitizing effects

4.3 Indication of any immediate medical attention and special treatment needed

Treatment: No information available.

SECTION 5. Fire fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam
Sand
Carbon dioxide (CO₂)
Water mist
Water spray jet

Unsuitable extinguishing media:

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: The pressure in sealed containers can increase under the influence of heat.
Cool closed containers exposed to fire with water spray.

5.3 Advice for firefighters

Special protective equipment for firefighters: In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.
Further information: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Immediately evacuate personnel to safe areas.
Prevent fire extinguishing water from contaminating surface water or the ground water system.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Refer to protective measures listed in sections 7 and 8.
Evacuate personnel to safe areas.
Use personal protective equipment.
Ensure adequate ventilation.
Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.

6.2 Environmental precautions

Environmental precautions: Do not allow uncontrolled discharge of product into the environment.



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Try to prevent the material from entering drains or water courses.

Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up:

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

Pick up and transfer to properly labeled containers.

6.4 Reference to other sections

For personal protection:

see section 8.

SECTION 7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling:

Provide sufficient air exchange and/or exhaust in work rooms.

Avoid inhalation, ingestion and contact with skin and eyes.

Wear personal protective equipment.

Advice on protection against fire and explosion:

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

Hygiene measures:

Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage areas and containers:

Keep containers tightly closed in a dry, cool and well ventilated place. Keep in properly labeled containers. To maintain product quality, do not store in heat or direct sunlight.

Advice on common storage:

Keep product and empty container away from heat and sources of ignition.

Keep away from food and drink.

Other data:

Stable at normal ambient temperature and pressure.

7.3 Specific end use(s)

Specific use(s):

Consult the technical guidelines for the use of this substance/mixture.

SECTION 8. Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

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

Polyether Polyol:

End Use: Workers

Exposure routes: Skin contact

Value: 13,9 mg/kg

End Use: Workers

Exposure routes: Inhalation

Value: 98 mg/m³



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bis(isopropyl)naphthalene:

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term systemic effects
Value: 2,1 mg/kg

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 2,1 mg/kg

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 4,3 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 7,4 mg/m³

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 30 mg/m³

2-(2-butoxyethoxy)ethyl acetate:

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 85 mg/m³

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 24 mg/kg

End Use: Consumers
Exposure routes: Inhalation
Potential health effects: Long-term systemic effects
Value: 43 mg/m³

End Use: Consumers
Exposure routes: Skin contact
Potential health effects: Long-term systemic effects
Value: 12 mg/kg

End Use: Consumers
Exposure routes: Ingestion
Potential health effects: Long-term systemic effects
Value: 1,58 mg/kg

Low boiling point naphtha -unspecified:

End Use: Workers
Exposure routes: Skin contact
Potential health effects: Long-term exposure, Systemic effects
Value: 25 mg/kg

End Use: Workers
Exposure routes: Inhalation
Potential health effects: Long-term exposure, Systemic effects
Value: 150 mg/m³

End Use: Consumers



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Exposure routes: Skin contact

Potential health effects: Long-term exposure, Systemic effects

Value: 11 mg/kg

End Use: Consumers

Exposure routes: Inhalation

Potential health effects: Long-term exposure, Systemic effects

Value: 32 mg/m³

End Use: Consumers

Exposure routes: Ingestion

Potential health effects: Long-term exposure, Systemic effects

Value: 11 mg/kg

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

bis(isopropyl)naphthalene:

Sewage treatment plant

Value: 0,15 mg/l

Fresh water

Value: 0,00026 mg/l

Marine water

Value: 0,000026 mg/l

Fresh water sediment

Value: 0,94 mg/kg

Marine sediment

Value: 0,094 mg/kg

Soil

Value: 0,19 mg/kg

2-(2-butoxyethoxy)ethyl acetate:

Fresh water

Value: 0,108 mg/l

Marine water

Value: 0,0108 mg/l

Fresh water sediment

Value: 0,8 mg/kg

Marine sediment

Value: 0,08 mg/kg

Soil

Value: 0,29 mg/kg

Intermittent releases

Value: 0,6 mg/l

Sewage treatment plant

Value: 100 mg/l

8.2 Exposure controls

Engineering measures:

Effective exhaust ventilation system

effective ventilation in all processing areas

Personal protective equipment

Eye protection:

Do not wear contact lenses.

Safety glasses with side-shields conforming to EN166

Ensure that eyewash stations and safety showers are close to the workstation location.



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Hand protection:

Material : Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Skin and body protection:

Protective suit

Respiratory protection:

Use respiratory protection unless adequate local exhaust ventilation is provided or exposure assessment demonstrates that exposures are within recommended exposure guidelines.

In the case of vapor formation use a respirator with an approved filter.

Respirator with a vapor filter (EN 141)

Apply technical measures to comply with the occupational exposure limits.

This should be achieved by a good general extraction and –if practically feasible- by the use of a local exhaust ventilation.

Protective measures:

Avoid contact with skin.

Wear suitable protective equipment.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	liquid
Color:	white
Odor:	slight
Odor Threshold:	not determined
pH:	not determined
Melting point/freezing point:	Not applicable
Boiling point/boiling range:	> 200 °C
Flash point:	200 °C
Evaporation rate:	not determined
Upper explosion limit:	Not applicable
Lower explosion limit:	Not applicable
Vapor pressure:	Not applicable
Relative vapor density:	not determined
Density:	0.98 g/cm ³ (25 °C)
Bulk density:	not determined
Solubility(ies)	
Solubility in other solvents:	not determined
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	Not applicable
Thermal decomposition:	Method: No data available
Viscosity	
Viscosity, dynamic:	40 - 80 mPa.s (25 °C)
Viscosity, kinematic:	not determined
Explosive properties:	Not applicable
Oxidizing properties:	Not applicable
<u>9.2 Other information</u>	
Surface tension:	not determined
Sublimation point:	Not applicable



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SECTION 10. Stability and reactivity

10.1 Reactivity

Reactivity:

Stable under recommended storage conditions.

10.2 Chemical stability

Chemical stability:

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions:

Reacts with the following substances:

Isocyanates

Keep away from oxidizing agents, and acidic or alkaline products.

10.4 Conditions to avoid

Conditions to avoid:

No decomposition if used as directed.

10.5 Incompatible materials

Materials to avoid:

Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

Hazardous decomposition products:

No decomposition if stored and applied as directed.

SECTION 11. Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product:

Acute oral toxicity : Remarks: No data available

Components:

bis(isopropyl)naphthalene:

Acute inhalation toxicity : LC50 (Rat, male and female):
> 5,64 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

GLP: yes

distillates (petroleum), hydrotreated light:

Acute oral toxicity : LD50 (Rat, male and female): >
5.000 mg/kg

Method: OECD Test Guideline 401

GLP: yes

Acute inhalation toxicity : LC50 (Rat, male and female):
4,951 mg/l

Exposure time: 4 h

Method: OECD Test Guideline 403

GLP: yes

Acute dermal toxicity : LD50 (Rabbit, male and female):
> 5.000 mg/kg

Method: OECD Test Guideline 402

GLP: yes

Low boiling point naphtha - unspecified:

Acute oral toxicity : LD50 (Rat): > 2.000 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50 (Rabbit, male and female):
> 3.160 mg/kg

Method: OECD Test Guideline 402

Skin corrosion/irritation



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Product:
Components:

Remarks: No data available
bis(isopropyl)naphthalene:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes
distillates (petroleum), hydrotreated light:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes
Low boiling point naphtha - unspecified:
Species: Rabbit
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: yes

Serious eye damage/eye irritation

Product:
Components:

Remarks: No data available
bis(isopropyl)naphthalene:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
GLP: yes
Low boiling point naphtha - unspecified:
Species: Rabbit
Method: OECD Test Guideline 405
Result: No eye irritation
GLP: yes

Respiratory or skin sensitization

Product:
Components:

Remarks: No data available
bis(isopropyl)naphthalene:
Test Type: Maximisation Test (GPMT)
Exposure routes: Dermal
Species: Guinea pig
Method: OECD Test Guideline 406
Result: Does not cause skin sensitisation.
GLP: yes

Germ cell mutagenicity
Carcinogenicity
Reproductive toxicity
STOT - single exposure

Product:

STOT - repeated exposure
Repeated dose toxicity

Product:

Aspiration toxicity
Components:

Remarks: Not applicable

Remarks: No data available

Low boiling point naphtha - unspecified:
The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

Further information



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Product:

Remarks: No data available

SECTION 12. Ecological information

12.1 Toxicity

Product:

Toxicity to fish:

Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates:

Remarks: No data available

Components:

bis(isopropyl)naphthalene:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): > 0,5 mg/l

Exposure time: 96 h

Test Type: semi-static test

Method: Directive 67/548/EEC, Annex V, C.1.

GLP: yes

distillates (petroleum), hydrotreated light:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 1.000 mg/l

Exposure time: 48 h

Test Type: semi-static test

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): > 1.000 mg/l

Exposure time: 48 h

Test Type: static test

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : ErC50 (Pseudokirchneriella subcapitata (green algae)): >1.000 mg/l

Exposure time: 72 h

Test Type: static test

Method: OECD Test Guideline 201

GLP: yes

Low boiling point naphtha - unspecified:

Toxicity to fish : LL50 (Fish): 9,2 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203

GLP: yes

Toxicity to daphnia and other aquatic invertebrates:

EC50 (Daphnia magna (Water flea)): 3,2 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

GLP: yes

Toxicity to algae : EC50 (Pseudokirchneriella subcapitata): 2,6 mg/l

Exposure time: 72 h

Method: OECD Test Guideline 201

GLP: yes

12.2 Persistence and degradability

Product:

Biodegradability:

Remarks: No data available

Components:

bis(isopropyl)naphthalene:

Biodegradability : Test Type: aerobic



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distillates (petroleum), hydrotreated light:

Result: Not readily biodegradable.

Method: OECD Test Guideline 310

GLP: yes

Biodegradability : Test Type: aerobic

Result: Readily biodegradable.

Method: OECD Test Guideline 301F

GLP: yes

Biodegradability : Result: Readily biodegradable.

Method: OECD Test Guideline 301F

Low boiling point naphtha - unspecified:

12.3 Bioaccumulative potential

Product:

Bioaccumulation:

Remarks: No data available

12.4 Mobility in soil

Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment

Product:

Assessment:

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

12.6 Other adverse effects

Product:

Additional ecological information:

Remarks: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13. Disposal considerations

13.1 Waste treatment methods

Product:

In accordance with local and national regulations.

Container hazardous when empty.

Do not dispose of with domestic refuse.

Do not mix waste streams during collection.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Contaminated packaging:

SECTION 14. Transport information

14.1 UN number

Not regulated as a dangerous good

14.2 UN proper shipping name

Not regulated as a dangerous good

14.3 Transport hazard class(es)

Not regulated as a dangerous good

14.4 Packing group

Not regulated as a dangerous good

14.5 Environmental hazards

Not regulated as a dangerous good

14.6 Special precautions for user

Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.



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SECTION 15. Regulatory information

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

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles (Annex XVII):

- Low boiling point naphtha - unspecified
- Xylene, mixture of isomers
- 2-methoxy-1-methylethyl acetate
- 2-methylpropan-1-ol

REACH - Candidate List of Substances of Very High Concern for Authorization (Article 59): This product does not contain substances of very high concern (Regulation (EC) No 1907/2006 (REACH), Article 57).

REACH - List of substances subject to authorization (Annex XIV): Not applicable

Seveso II - Directive 2003/105/EC amending Council Directive 96/82/EC on the control of major accident hazards involving dangerous substances:

		Quantity 1	Quantity 2
13	Petroleum products: (a)gasolines and naphthas, (b) kerosenes (including jet fuels), (c) gas oils (including diesel fuels, home heating oils and gas oil blending streams)	2 500 t	25 000 t

15.2 Chemical Safety Assessment

Not applicable

SECTION 16. Other information

Full text of R-Phrases

R10:	Flammable.
R36:	Irritating to eyes.
R37:	Irritating to respiratory system.
R51/53:	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R53:	May cause long-term adverse effects in the aquatic environment.
R65:	Harmful: may cause lung damage if swallowed.
R66:	Repeated exposure may cause skin dryness or cracking.
R67:	Vapours may cause drowsiness and dizziness.

Full text of H-Statements

H226:	Flammable liquid and vapour.
H304:	May be fatal if swallowed and enters airways.
H319:	Causes serious eye irritation.
H335:	May cause respiratory irritation.
H336:	May cause drowsiness or dizziness.
H411:	Toxic to aquatic life with long lasting effects.
H413:	May cause long lasting harmful effects to aquatic life.

Full text of other abbreviations

Aquatic Chronic:	Chronic aquatic toxicity
Asp. Tox.:	Aspiration hazard
Eye Irrit.:	Eye irritation
Flam. Liq.:	Flammable liquids
STOT SE:	Specific target organ toxicity - single exposure



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