Safety Data Sheet dated 24/2/2023, version 1

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

1.1. Product identifier
Mixture identification:
Trade name: AIR FILTER

1.2. Relevant identified uses of the substance or mixture and uses advised against
Recommended use:
PC-TEC-11 (EuPCS)
1.3. Details of the supplier of the safety data sheet
Company:
NILS S.p.A.
Via Stazione, 30
39014 Postal (BZ)

e-mail: nils@nils.it
www.nils.eu
Tel. +39 0473 29 24 00
Fax +39 0473 29 12 44
Competent person responsible for the safety data sheet:
schedasicurezza@nils.it
1.4. Emergency telephone number
CAV "Ospedale Pediatrico Bambino Gesù" - Roma - Tel. +39 06 6859 37 26

CAV "Azienda Ospedaliera Università di Foggia" - Foggia - Tel. 800 183 459

CAV "Azienda Ospedaliera A. Cardarelli" - Napoli - Tel. +39 081 545 33 33

CAV Policlinico "Umberto I" - Roma - Tel. +39 06 4997 80 00

CAV Policlinico "A. Gemelli" - Roma - Tel. +39 06 305 43 43

CAV Aziedna Ospedaliera "Careggi" U.O. Tossicologia Medica - Firenze - Tel. +39 055 794 78 19

CAV Centro Nazionale di Informazione Tossicologica - Pavia - Tel. +39 0382 24 444

CAV Ospedale Niguarda - Milano - +39 02 66 10 10 29

CAV Azienda Ospedaliera Papa Giovanni XXIII - Bergamo - Tel. 800 88 33 00

CAV Centro Antiveleni Veneto - Verona - Tel. 800 011 858
Tel. +39 0473 29 24 00
Fax +39 0473 29 12 44

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
EC regulation criteria 1272/2008 (CLP)
Danger, Flam. Liq. 2, Highly flammable liquid and vapour.
Warning, Skin Irrit. 2, Causes skin irritation.

Warning, Repr. 2, Suspected of damaging fertility or the unborn child in contact with skin and if swallowed.
Warning, STOT SE 3, May cause drowsiness or dizziness.
Warning, STOT RE 2, May cause damage to organs through prolonged or repeated exposure.
Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H361 Suspected of damaging fertility or the unborn child in contact with skin and if swallowed.
H336 May cause drowsiness or dizziness.
H373 May cause damage to organs through prolonged or repeated exposure.
H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P280 Wear protective gloves/clothing and eye/face protection.
P362+P364 Take off contaminated clothing and wash it before reuse.
P370+P378 In case of fire: Use sand / carbon dioxide (CO2) / dry powder extinguisher to extinguish.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Contains

n-hexane

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number		Classification
>= 50% - < 55%	n-hexane	Index number:	601-037-00-0	2.6/2 Flam. Liq. 2 H225 3.7/2 Repr. 2 H361 3.10/1 Asp. Tox. 1 H304
		CAS:	110-54-3	
		EC:	203-777-6	

		REACH No.: 01-21194804 12-44	3.9/2 STOT RE 2 H373 3.2/2 Skin Irrit. 2 H315 3.8/3 STOT SE 3 H336 4.1/C2 Aquatic Chronic 2 H411 Specific Concentration Limits: C >= 5%: STOT RE 2 H373

SECTION 4: First aid measures

4.1. Description of first aid measures
In case of skin contact:
Take off contaminated clothing.
Wash with plenty of water and soap.
If skin irritation occurs: Get medical advice/attention.
In case of eyes contact:
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately.
Remove contact lenses, if present and easy to do. Continue rinsing.
In case of Ingestion:
If swallowed, rinse mouth with water (only if the person is conscious).
Do NOT induce vomiting.
IF SWALLOWED: immediately send casualty to a hospital. Do not wait for symptoms to develop.
In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest.
In case of inhalation, consult a doctor immediately and show him packing or label.
4.2. Most important symptoms and effects, both acute and delayed
Reddening

Caustic if swallowed / inhaled.
Mancanza di aria

Headache
Blisters on lips and tongue

Severe burns

Drowsiness
Unconsciousness
Nausea
4.3. Indication of any immediate medical attention and special treatment needed
In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
Treatment:
None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Carbon dioxide (CO2).
In case of fire, use a foam fire extinguisher to extinguish.
In case of fire, use a dry powder fire extinguisher to extinguish.
Water spray

Extinguishing media which must not be used for safety reasons:
None in particular.

5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
For non emergency personnel:
Do not get in eyes, on skin, or on clothing.
Remove contaminated clothing and used contaminated protective equipment, and dispose of it safely.
For emergency responders:
Wear personal protection equipment.

6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up
For containment:
Collect with absorbent substances (sand, kieselguhr, diatomite, acid binder, universal binder).

For cleaning up:
Collect mechanically and dispose of in adequate containers.

6.4. Reference to other sections
Hazardous combustion products: see Sect. 5
Precautions for safe handling: see Sect. 7
Individual protection measures: see Sect. 8
Incompatible materials: see Sect. 10
Enviornmental precautions: see Sect. 12
Disposal considerations: see Sect. 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Handle with care to avoid spillage.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities
Store in a dry place. Store in a closed container.
Susceptible to extremely low or high temperatures.

Always keep in a well ventilated place.
Keep away from unguarded flame, sparks, and heat sources. Avoid direct exposure to sunlight.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.

7.3. Specific end use(s)
PC-TEC-11 (EuPCS)

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
n-hexane - CAS: 110-54-3
- OEL Type: EU - TWA(8h): 72 mg/m3, 20 ppm

DNEL Exposure Limit Values
N.A.

PNEC Exposure Limit Values
N.A.

8.2. Exposure controls

Eye protection:
Eye glasses with side protection.

Protection for skin:
IWaterproof clothing

The type of protective equipment depends on the concentration and amount of hazardous substances at the work station in question.

Protection for hands:
Only CE-marked protective gloves tested according to EN 374 may be worn when working with chemicals. Protective gloves must be selected for each workplace depending on the concentration and type of harmful substances after consultation with the supplier. Establish a healing period for skin regeneration. Preventive protection of the skin is recommended (protective creams/pomades). Wash hands thoroughly after use.
NBR (nitrile rubber).
Breakthrough time:
>= 480 min
Thickness of glove material:

0.35 mm

Respiratory protection:
Respiratory protection in case of the formation of aerosol or mists: use a mask with type A2, A2 / P2 or ABEK filter.

Thermal Hazards:
None

Environmental exposure controls:
None

Appropriate engineering controls:
Provide eyewash stations.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes

Physical state:	Liquid	--	--
Colour:	Colourless	--	--
Odour:	Characteristic	--	--
Melting point/freezing point:	-40 ° C	--	--
Pour point	N.A.	--	--
Drop point	N.A.	--	--
Boiling point or initial boiling point and boiling range:	69-300 ° C	--	--
Flammability:	Flam. Liq. 2, H225	--	--
Lower and upper explosion limit:	N.A.	--	--
Flash point:	-22 ° C	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
pH:	N.A.	--	--
Kinematic viscosity:	30	--	40 °C
Solubility in water:	Insoluble	--	--
Solubility in oil:	N.A.	--	--
Partition coefficient n-octanol/water (log value):	N.A.	--	--
Vapour pressure:	162 hPa	--	20 °C
Density and/or relative density:	0.78 kg/dm3	--	20 °C
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	**Value**	**Method:**	**Notes**
Explosive properties:	1.4 -7.4 vol%	--	--
Evaporation rate:	8.000	--	(n-BuAc = 1)

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Susceptible to extremely low or high temperatures.
10.3. Possibility of hazardous reactions
None
10.4. Conditions to avoid
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.
10.5. Incompatible materials
Acids
Alkaline materials
Oxidizing agents
Reducing agents
10.6. Hazardous decomposition products
None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008
Toxicological information of the product:
AIR FILTER
a) acute toxicity
Not classified
Based on available data, the classification criteria are not met
b) skin corrosion/irritation

The product is classified: Skin Irrit. 2 H315
c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met
d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met
e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met
f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met
g) reproductive toxicity
The product is classified: Repr. 2 H361
h) STOT-single exposure
The product is classified: STOT SE 3 H336
i) STOT-repeated exposure
The product is classified: STOT RE 2 H373
j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met
Toxicological information of the main substances found in the product:
n-hexane - CAS: 110-54-3
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 5000 mg/kg

11.2. Information on other hazards
Endocrine disrupting properties:
No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity
Adopt good working practices, so that the product is not released into the environment.
AIR FILTER
The product is classified: Aquatic Chronic 2 - H411
12.2. Persistence and degradability
n-hexane - CAS: 110-54-3
Biodegradability: Readily biodegradable - %: 0.1-100 mg/l
12.3. Bioaccumulative potential
n-hexane - CAS: 110-54-3
Test: BCF - Bioconcentrantion factor 501.187
Test: Kow - Partition coefficient 4
12.4. Mobility in soil
AIR FILTER
Not mobile
n-hexane - CAS: 110-54-3
Test: Koc 3.34
12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None
12.6. Endocrine disrupting properties
No endocrine disruptor substances present in concentration >= 0.1%
12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

ADR-UN number:	1993
IATA-Un number:	1993
IMDG-Un number:	1993

14.2. UN proper shipping name

ADR-Shipping Name:	UN 1993 Flammable Liquid, n.o.s. (mixture with n-Hexane) , 3, II, (D/E)
IATA-Technical name:	UN 1993 Flammable Liquid, n.o.s. (mixture with n-Hexane) , 3, II, (D/E)
IMDG-Technical name:	UN 1993 Flammable Liquid, n.o.s. (mixture with n-Hexane) , 3, II, (D/E)

14.3. Transport hazard class(es)

ADR-Class:	3
ADR-Label:	3
ADR - Hazard identification number:	33
IATA-Class:	3
IATA-Label:	3
IMDG-Class:	3

14.4. Packing group

ADR-Packing Group:	II
IATA-Packing group:	II
IMDG-Packing group:	II

14.5. Environmental hazards

14.6. Special precautions for user

ADR-Transport category (Tunnel restriction code): D/E

IMDG-Technical name:	UN 1993 Flammable Liquid, n.o.s. (mixture with n-Hexane) , 3, II, (D/E)

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)

Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:
Restriction 3
Restriction 40

Restrictions related to the substances contained:
Restriction 75

Where applicable, refer to the following regulatory provisions :
Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):
Seveso III category according to Annex 1, part 1
Product belongs to category: P5c, E2

National legislation

Limitations for workers: Respect the employment limits according to Directive 94/33/EC on the protection of young people at work.

German Water Hazard Class: 2 - Water pollutant.

15.2. Chemical safety assessment
No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

COV(%): 50
COV(g/l): 390.00

Full text of phrases referred to in Section 3:
H225 Highly flammable liquid and vapour.
H361 Suspected of damaging fertility or the unborn child in contact with skin and if swallowed.
H304 May be fatal if swallowed and enters airways.
H373 May cause damage to organs through prolonged or repeated exposure.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H411 Toxic to aquatic life with long lasting effects.

Hazard class and hazard category	Code	Description
Flam. Liq. 2	2.6/2	Flammable liquid, Category 2
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1

Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Repr. 2	3.7/2	Reproductive toxicity, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, Category 2
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	**Classification procedure**
Flam. Liq. 2, H225	On basis of test data
Skin Irrit. 2, H315	Calculation method
Repr. 2, H361	Calculation method
STOT SE 3, H336	Calculation method
STOT RE 2, H373	Calculation method
Aquatic Chronic 2, H411	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.

PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.