

DRY GRAPHITE NANO

Creation date	11th December 2023	Version	2.1
Revision date			

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

- 1.1. Product identifier**
Substance / mixture DRY GRAPHITE NANO
mixture
Number R 34454
UFI 9G6S-1Y1M-U002-AN3X
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**
Mixture's intended use
Grease.
Main intended use
PC-TEC-11 Lubricants, greases, release agents
Mixture uses advised against
For professional use only.
- 1.3. Details of the supplier of the safety data sheet**
Supplier
Name or trade name RETECH, s.r.o.
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00
Czech Republic
Identification number (CRN) 25018205
VAT Reg No CZ25018205
Phone +420327596428
E-mail info@retech.cz
Web address www.retech.com
- Competent person responsible for the safety data sheet**
Name RETECH, s.r.o.
E-mail info@retech.cz
- 1.4. Emergency telephone number**
European emergency number: 112

SECTION 2: Hazards identification

- 2.1. Classification of the substance or mixture**
Classification of the mixture in accordance with Regulation (EC) No 1272/2008

The mixture is classified as dangerous.

Aerosol 1, H229, H222

Full text of all classifications and hazard statements is given in the section 16.

Most serious adverse physico-chemical effects

Pressurised container: May burst if heated. Extremely flammable aerosol.

- 2.2. Label elements**
Hazard pictogram

**Signal word**

Danger

Hazard statements

H222

Extremely flammable aerosol.

H229

Pressurised container: May burst if heated.

Precautionary statements

P210

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

P211

Do not spray on an open flame or other ignition source.

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P251	Do not pierce or burn, even after use.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture of substances and additives specified below.

Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	butane (containing < 0,1 % butadiene (203-450-8))	25-<50	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	
CAS: 109-87-5 EC: 203-714-2 Registration number: 01-2119664781-31	dimethoxymethane	25-<50	Flam. Liq. 2, H225	2
Index: 603-002-00-5 CAS: 64-17-5 EC: 200-578-6 Registration number: 01-2119457610-43	ethanol	10-<25	Flam. Liq. 2, H225	
CAS: 74-98-6 EC: 200-827-9 Registration number: 01-2119486944-21	propane	2,5-<10	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	
CAS: 75-28-5 EC: 200-857-2 Registration number: 01-2119485395-27	isobutane (containing < 0,1 % butadiene (203-450-8))	2,5-<10	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	
CAS: 67-56-1 EC: 200-659-6 Registration number: 01-2119433307-44	methanol	0,1-<1	Flam. Liq. 2, H225 Acute Tox. 3, H301, H311, H331 STOT SE 1, H370	1
Index: 606-001-00-8 CAS: 67-64-1 EC: 200-662-2 Registration number: 01-2119471330-49	acetone	0,1-<1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066	1

Notes

- 1 A substance for which exposure limits are set.
- 2 Substance of unknown or variable composition, complex reaction products or biological materials - UVCB.

Full text of all classifications and hazard statements is given in the section 16.

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SECTION 4: First aid measures**4.1. Description of first aid measures**

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

If on skin

Generally the product does not irritate the skin.

If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

4.2. Most important symptoms and effects, both acute and delayed**If inhaled**

not available

If on skin

not available

If in eyes

not available

If swallowed

not available

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

not available

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam, carbon dioxide, powder, water mist.

Unsuitable extinguishing media

Water - full jet.

5.2. Special hazards arising from the substance or mixture

not available

5.3. Advice for firefighters

Use a self-contained breathing apparatus and full-body protective clothing.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

Provide sufficient ventilation. Use personal protective equipment for work. Keep unprotected persons away.

6.2. Environmental precautions

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

6.3. Methods and material for containment and cleaning up

Provide sufficient ventilation. Do not flush with water or aqueous cleansing agents.

6.4. Reference to other sections

See the Section 7, 8 and 13.

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SECTION 7: Handling and storage**7.1. Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Do not spray on an open flame or other ignition source. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Take precautionary measures against static discharge. Pressurised container: May burst if heated. Keep away from sources of heating, ignition and direct sunlight. Do not pierce or burn, even after use.

7.2. Conditions for safe storage, including any incompatibilities

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Content	Packaging type	Material of package
400 ml	aerosol can	FE

7.3. Specific end use(s)

not available

SECTION 8: Exposure controls/personal protection**8.1. Control parameters**

The mixture contains substances for which occupational exposure limits are set.

European Union**Commission Directive 2000/39/EC**

Substance name (component)	Type	Value	Note
acetone (CAS: 67-64-1)	OEL 8 hours	1210 mg/m ³	
	OEL 8 hours	500 ppm	

European Union**Commission Directive 2006/15/EC**

Substance name (component)	Type	Value	Note
methanol (CAS: 67-56-1)	OEL 8 hours	260 mg/m ³	Skin
	OEL 8 hours	200 ppm	

8.2. Exposure controls

Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

Eye/face protection

Tightly sealed goggles.

Skin protection

Hand protection: Protective gloves resistant to the product. The final selection of the glove material must be carried out on the basis of penetration times, permeation rates and degradation. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material: ≥ 0.5 mm. Penetration time of glove material: > 480 min. The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed. Observe other recommendations of the manufacturer. Other protection: protective workwear.

Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter A2/P2.

Thermal hazard

Not available.

Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state	liquid
Colour	black
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	-44.5 °C

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Flammability	Extremely flammable aerosol.
Lower and upper explosion limit	
bottom	1.5 %
upper	19.9 %
Flash point	-97 °C
Auto-ignition temperature	data not available
Decomposition temperature	data not available
pH	non-polar/aprotic
Kinematic viscosity	data not available
Solubility in water	soluble
Solubility in fats	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	2100 hPa at 20 °C
Density and/or relative density	
Density	0.671 g/cm ³ at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available
Form	aerosol dispenser: spray aerosol
data not available	

9.2. Other information

Evaporation rate	data not available
Explosive properties	The product does not have explosive properties but can be explosive when blended with air.
Content of organic solvents (VOC)	96.1 %
Solid content (dry matter)	3.4 % volume
Max. VOC content in the product in its ready to use condition	644.8 g/l
Product is not selfigniting.	

SECTION 10: Stability and reactivity**10.1. Reactivity**

not available

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

Unknown.

10.4. Conditions to avoid

not available

10.5. Incompatible materials

not available

10.6. Hazardous decomposition products

Unknown.

SECTION 11: Toxicological information**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

No toxicological data is available for the mixture.

Acute toxicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Skin corrosion/irritation

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

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Serious eye damage/irritation

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Respiratory or skin sensitisation

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Germ cell mutagenicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Carcinogenicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Reproductive toxicity

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Toxicity for specific target organ - single exposure

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Toxicity for specific target organ - repeated exposure

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

Aspiration hazard

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

11.2. Information on other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 12: Ecological information**12.1. Toxicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

12.2. Persistence and degradability

No data are available for either the mixture or the components.

12.3. Bioaccumulative potential

No data are available for either the mixture or the components.

12.4. Mobility in soil

No data are available for either the mixture or the components.

12.5. Results of PBT and vPvB assessment

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

12.6. Endocrine disrupting properties

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

12.7. Other adverse effects

Not available.

SECTION 13: Disposal considerations

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13.1. Waste treatment methods

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste. Empty containers may be used at waste incinerators to produce energy or deposited in a dump with appropriate classification.

Waste management legislation

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

SECTION 14: Transport information

14.1. UN number or ID number

UN 1950

14.2. UN proper shipping name

AEROSOLS

14.3. Transport hazard class(es)

2 Gases

14.4. Packing group

not relevant

14.5. Environmental hazards

No

14.6. Special precautions for user

Reference in the Sections 4 to 8.

14.7. Maritime transport in bulk according to IMO instruments

not relevant

Additional information

Stowage Code: SW1 Protected from sources of heat. SW2 Clear of living quarters. Segregation Code: SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

Hazard identification No.

UN number

Classification code

Safety signs



5F

2.1



Road transport - ADR

Limited quantities

Excepted quantities

Transport category

Tunnel restriction code

1 L

E0

2

(D)

Railway transport - RID

Marine transport - IMDG

EmS (emergency plan)

F-D, S-U

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SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No. 793/93 and Commission Regulation (EC) No. 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Product contains reportable explosives precursors: Reporting of suspicious transactions, disappearances and thefts according to Regulation (EU) 2019/1148, Article 9. Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information**A list of standard risk phrases used in the safety data sheet**

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapour.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H336	May cause drowsiness or dizziness.
H370	Causes damage to organs.

Guidelines for safe handling used in the safety data sheet

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P260	Do not breathe mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

A list of additional standard phrases used in the safety data sheet

EUH066	Repeated exposure may cause skin dryness or cracking.
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Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals

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ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
log K _{ow}	Octanol-water partition coefficient
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations
UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative

Acute Tox.	Acute toxicity
Aerosol	Aerosol
Eye Irrit.	Eye irritation
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
Press. Gas	Gases under pressure
STOT SE	Specific target organ toxicity - single exposure

Training guidelines

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

Recommended restrictions of use

not available

Information about data sources used to compile the Safety Data Sheet

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

The changes (which information has been added, deleted or modified)

The version 2.1 replaces the SDS version from 08 February 2021. Changes were made in sections 2, 11, 12, 13, 15 and 16.

Statement

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.