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

1.1 Product identifier

Trade name/designation	Activated carbon
Substance name	activated carbon [carbon]
EC No	931-328-0
REACH No.	01-2119488894-16
CAS No	7440-44-0

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

Sector of uses [SU]
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU3 Industrial uses

Product Categories [PC]
PC2 Adsorbents

Use of the substance/mixture
Filter (activated carbon, 2mm) for organic solvent.

1.3 Details of the supplier of the safety data sheet

Supplier
Elma Schmidbauer GmbH
Gottlieb-Daimler-Str. 17
D-78224 Singen (Htwl.)
Telephone +49 7731 882-0
Telefax +49 7731 882-266
E-mail info@elma-ultrasonic.com
Website www.elma-ultrasonic.com

Department responsible for information:
Chemie/Labor: Email: chemlab@elma-ultrasonic.com

1.4 Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg (Sprache/Language: DE, EN) +49 761 19240

* SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Remark
The product is not classified as dangerous according to Regulation (EC) 1272/2008 [GHS].
The product does not require a hazard warning label according to Regulation (EC) No 1272/2008 [GHS].

2.2 Label elements

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

Precautionary statements
P261 Avoid breathing dust.

* 2.3 Other hazards

* **Adverse human health effects and symptoms**
Acute Tox. 5 (inhalation) H333: May be harmful if inhaled.
This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

* **Adverse environmental effects**
This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

Results of PBT and vPvB assessment
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition / information on ingredients

3.1 Substances

Substance name	activated carbon [carbon]
EC No	931-328-0
REACH No.	01-2119488894-16
CAS No	7440-44-0

3.2 Mixtures

not applicable

SECTION 4: First aid measures

4.1 Description of first aid measures

Following inhalation
In the event of symptoms refer for medical treatment.

Following skin contact
After contact with skin, wash immediately with plenty of water and soap.

After eye contact
After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Following ingestion
In the event of persistent symptoms receive medical teatment.
Rinse mouth immediately and drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms
No further informations available.

4.3 Indication of any immediate medical attention and special treatment needed

Notes for the doctor
No relevant informations available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media
Water
Foam
Extinguishing powder

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products
In case of fire formation of dangerous gases possible.
In the event of fire the following can be released:
Carbon monoxide
Carbon dioxide (CO_2)

5.3 Advice for firefighters

Special protective equipment for firefighters
Do not inhale explosion and combustion gases.

Additional information
Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel
Avoid dust formation.
Use personal protection equipment.
Remove all sources of ignition.

For emergency responders
Avoid dust formation.
Use personal protection.
Remove all sources of ignition.
Use breathing apparatus if exposed to vapours/dust/aerosol.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For containment
Take up mechanically and send for disposal.

6.4 Reference to other sections

Informations for safe handling see chapter 7.
Informations for personal protective equipment see chapter 8.
Informations for disposal see chapter 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures
Avoid the formation of dust.
Do not inhale dust.
Avoid contact with eyes and skin.
Keep container tightly closed.
Keep away from sources of ignition - No smoking.
Dust can form an explosive mixture with air.
Keep the packing dry and well sealed to prevent contamination and absorbtion of humidity.

Advices on general occupational hygiene
Make available sufficient washing facilities
Keep away from food and drink.
Wash hands before breaks and after work.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep/Store only in original container.
Keep container tightly closed.

Materials to avoid
Do not store together with:
Oxidising agent

Further information on storage conditions
Keep locked up and out of reach of children.
Protect from heat and direct solar radiation.

7.3 Specific end use(s)

Recommendation
no further

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

DNEL worker

CAS No	Substance name	DNEL value	DNEL type	Remark
7440-44-0	activated carbon [carbon]	1.84 mg/m³	long-term inhalative (local)	Assessment factor 2

8.2 Exposure controls

Appropriate engineering controls

Technical measures to prevent exposure
Technical exhaustion if there is a long-term exposition

Personal protection equipment

Respiratory protection
Suitable respiratory protection apparatus:
Particle filter P2
In case of dust formation wear micro dust mask.

Environmental exposure controls

Technical measures to prevent exposure
Do not discharge into the drains/surface waters/groundwater.

Additional information
Occupational exposure limits for dust.

* SECTION 9: Physical and chemical properties

* 9.1 Information on basic physical and chemical properties

* **Physical state**
solid
Granulate

Colour
black

Odour
almost odourless

Safety relevant basis data

	Value	Method	Source, Remark
Odour threshold:			not determined
Melting point/freezing point	Melting point approx. 3350 °C		
Boiling point or initial boiling point and boiling range	approx. 4800 °C		
flammability	solid		Not classified as flammable solid.
flammability	gaseous		not applicable

	Value	Method	Source, Remark
Lower and upper explosion limit	Upper explosion limit		not determined
Lower and upper explosion limit	Lower explosion limit		not determined
Flash point			not applicable
Auto-ignition temperature	275 °C		
Decomposition temperature			not determined
pH	in delivery state		not applicable
Viscosity			not applicable
Solubility(ies)	Water solubility < 0.1 mg/L (20°C)		practically insoluble
Partition coefficient n-octanol/water (log value)			not determined
Vapour pressure			not applicable
Density and/or relative density	2.3 g/cm³		
Density and/or relative density	Bulk density 400- 460 kg/m³		
Relative vapour density			not relevant
particle characteristics	Particle size distribution range 0.5- 250 µm		European Chemicals Agency, http://echa.europa.eu/.
particle characteristics	mass median diameter (MMD) 20.9 µm		European Chemicals Agency, http://echa.europa.eu/.

9.2 Other information

Information with regard to physical hazard classes

Explosives

Assessment/classification
This product does not contain any explosive substances (CLP I 2.1.4.3 a).
CLP I 2.1.4.3 a: The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with explosive properties.

flammable gases

Assessment/classification
not applicable (solid).

Aerosols

Assessment/classification
not relevant - no aerosol.
The classification criteria for this hazard class are not met by definition.

Oxidising gas

Assessment/classification
not applicable (solid).

Gases under pressure

Assessment/classification
not applicable (solid).

flammable liquids

Assessment/classification
not applicable (solid).

flammable solids

Assessment/classification
Not classified as flammable solid.

Self-reactive substances and mixtures

Assessment/classification
This product does not contain any self-reactive substances (CLP I 2.8.4.2 a).
CLP I 2.8.4.2 a: There are no chemical groups present in the molecule associated with explosive or self reactive properties.

Pyrophoric liquids

Assessment/classification
not applicable (solid).

Pyrophoric solids

Assessment/classification
Not pyrophoric.

self-heating substances and mixtures

Assessment/classification
No self-heating substance.

Substances or mixtures which, in contact with water, emit flammable gases

Assessment/classification
not relevant - in contact with water releases no flammable gases (CLP I 2.12.4.1).
CLP I 2.12.4.1: The classification procedure for this class need not be applied if: (a) the chemical structure of the substance or mixture does not contain metals or metalloids; or (b) experience in production or handling shows that the substance or mixture does not react with water, e.g. the substance is manufactured with water or washed with water; or (c) the substance or mixture is known to be soluble in water to form a stable mixture.

Oxidising liquids

Assessment/classification
not applicable (solid).

Oxidising solids

Assessment/classification
Not oxidising.

Organic peroxides

Assessment/classification
No organic peroxide.

Corrosive to metals

Safety characteristics

	Value	Method, Result	Source, Remark
			No substance corrosive to metals.

Assessment/classification
Based on available data, the classification criteria are not met.

Desensitised explosives

Assessment/classification
Not classified as a desensitized explosive.

Other safety characteristics

	Value	Method	Source, Remark
Solvent content	0 %		

	Value	Method	Source, Remark
Explosive properties			Not classified as explosive. Dust can form an explosive mixture with air.
Oxidising properties			none

Other information
No further relevant informations available.

SECTION 10: Stability and reactivity

10.1 Reactivity

Dust can form an explosive mixture with air.
No further hazardous reactions known if used as directed.

10.2 Chemical stability

Stable at ambient temperature.

10.3 Possibility of hazardous reactions

Reactions with oxidising agents.
Accumulation of fine dust may entail the risk of a dust explosion in the presence of air.

10.4 Conditions to avoid

Heat and direct solar radiation.

10.5 Incompatible materials

Oxidising agent

10.6 Hazardous decomposition products

No decomposition if used as directed.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Animal data

	Effective dose	Method,Evaluation	Source, Remark
Acute oral toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute dermal toxicity	> 5000 mg/kg	ATE: Acute Toxicity Estimate	
Acute inhalation toxicity	Acute inhalation toxicity (dust/mist) LC0: 8.5 mg/L Species Rat Exposure time 1 h	OECD 403	dust/mist

Assessment/classification
May be harmful if inhaled.

Skin corrosion/irritation

Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit	OECD 404	

Serious eye damage/irritation

Animal data

Result / Evaluation	Method	Source, Remark
non-irritant. Species Rabbit	OECD 405	

Sensitisation to the respiratory tract

Assessment/classification
Based on available data, the classification criteria are not met.

Skin sensitisation

Animal data

Result / Evaluation	Dose / Concentration	Method	Source, Remark
not sensitising.	Species Mouse	OECD 429	

Germ cell mutagenicity

	Value	Method	Result / Evaluation	Remark
In vitro mutagenicity/genotoxicity			No experimental information on genotoxicity in vitro available.	

Assessment/classification
Based on available data, the classification criteria are not met.

Carcinogenicity

Animal data

	Value	Method	Result / Evaluation	Remark
Carcinogenicity			Based on available data, the classification criteria are not met.	

Reproductive toxicity

Animal data

	Value	Method	Result / Evaluation	Remark
Reproductive toxicity			Based on available data, the classification criteria are not met.	

STOT-single exposure

STOT SE 1 and 2

Other information
Based on available data, the classification criteria are not met.

STOT SE 3

Irritation to respiratory tract

Assessment/classification
Based on available data, the classification criteria are not met.

Narcotic effects

Assessment/classification
Based on available data, the classification criteria are not met.

STOT-repeated exposure

Animal data

	Effective dose	Method	Specific effects:	Organs affected:	Source, Remark
Inhalative specific target organ toxicity (repeated exposure)	approx. 7.29 mg/m3 Species Rat Exposure duration 90 d	OECD 413			NOAEL

Other information
Based on available data, the classification criteria are not met.
Repeated or prolonged exposure to dusts may result in deposition of dust particles in the lungs.

Aspiration hazard

Remark
Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Information on other hazards

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

	Effective dose	Method,Evaluation	Source, Remark
Acute (short-term) fish toxicity			not determined
Chronic (long-term) fish toxicity	not determined		
Acute (short-term) toxicity to crustacea			not determined
Chronic (long-term) toxicity to aquatic invertebrate	not determined		
Acute (short-term) toxicity to algae and cyanobacteria			No tests with aquatic organisms could be performed due to the insolubility of the test substance. not determined
Chronic (long-term) toxicity to aquatic algae and cyanobacteria	not determined		
Toxicity to other aquatic plants/organisms	not determined		
Toxicity to microorganisms	not determined		

12.2 Persistence and degradability

	Value	Method	Source, Remark
Biodegradation			not applicable Inorganic product which is not eliminable from water through biological cleaning processes.

12.3 Bioaccumulative potential

Assessment/classification
activated carbon: Accumulation in organisms is not expected.

12.4 Mobility in soil

Assessment/classification
activated carbon: not available (Testing is not feasible).

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Endocrine disrupting properties

	Effective dose	Method,Evaluation	Source, Remark
Endocrine disrupting properties			This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

12.7 Other adverse effects

	Value	Method	Source, Remark
Ozone depletion potential (ODP):			Based on available data, the classification criteria are not met.

Additional ecotoxicological information

	Value	Method	Source, Remark
Chemical oyxgen demand (COD)	2664 mgO2/g	theoretical	
AOX			The product does not contain any organically bound halogens according to the recipe.

Additional information
The substance is highly insoluble in water and is unlikely to cross biological membranes, hence indicating that aquatic toxicity of the substance is unlikely to occur.
The substance is not classified as acute/chronic hazardous to the aquatic environment.
Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste codes/waste designations according to EWC/AVV

Waste code product	Waste name
061302 *	spent activated carbon (except 06 07 02)

Appropriate disposal / Product
Do not dispose with household waste. Do not discharge into the drains.
Dispose of waste according to applicable legislation.

Appropriate disposal / Package
Completely emptied packages can be recycled.
Verpackung nur restentleert in das Rücknahmesystem für Leichtverpackungen geben.

Remark
Send to a hazardous waste incinerator facility under observation of official regulations.

SECTION 14: Transport information

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)
14.1 UN number or ID number	UN 1362	UN 1362	UN 1362
14.2 UN proper shipping name	CARBON, ACTIVATED	CARBON, ACTIVATED	Carbon, activated
14.3 Transport hazard class(es)	4.2	4.2	4.2
14.4 Packing group	III	III	III
14.5 Environmental hazards	-	-	-

14.6 Special precautions for user

none

14.7 Maritime transport in bulk according to IMO instruments

not relevant

Land transport (ADR/RID)

UN number or ID number	UN 1362
UN proper shipping name	CARBON, ACTIVATED
Transport hazard class(es)	4.2
Hazard label(s)	4.2
Classification code	S2
Packing group	III
Environmental hazards	-
Limited quantity (LQ)	0
Special provisions	646
Tunnel restriction code	E

Remark
Not subject to the regulations of ADR according to special provision 646.

Sea transport (IMDG)

UN number or ID number	UN 1362
UN proper shipping name	CARBON, ACTIVATED
Transport hazard class(es)	4.2
Packing group	III
Environmental hazards	-
Limited quantity (LQ)	0
Marine pollutant	No
EmS	F-A, S-J

Remark
Not subject to the regulations of IMDG according to special provision 979.

Air transport (ICAO-TI / IATA-DGR)

UN number or ID number	UN 1362
UN proper shipping name	Carbon, activated
Transport hazard class(es)	4.2

Packing group	III
Environmental hazards	-

Remark
Not subject to the regulations of ICAO/IATA according to special provision A3.

SECTION 15: Regulatory information

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

EU legislation

Authorisations
not relevant

Restrictions on use
not relevant

Other regulations (EU)

To follow:
Directive 2012/18/EU, Annex I: not mentioned.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive] VOC
VOC content, delivery state 0 %

15.2 Chemical Safety Assessment

National regulations

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

Abbreviations and acronyms
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).
ATE: Acute Toxicity Estimate
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
AVV: Waste Shipment Ordinance (DE)
DGR: Dangerous Goods Regulations (IATA)
DNEL: derived no-effect level
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organization
OECD: Organisation for Economic Cooperation and Development
PBT: persistent and bioaccumulative and toxic
RID: Dangerous goods regulations for transport by rail
TI: Technical Instruction
TRGS: Technical Rules for Hazardous Substances
VOC: Volatile organic compounds
vPvB: very persistent, very bioaccumulative

Key literature references and sources for data
European Chemicals Agency, http://echa.europa.eu/.
Informations from our suppliers.

Additional information
National and local regulations concerning chemicals shall be observed.
These data are given according to our actual knowledge about this product.This data sheet does not correspond to an assurance by virtue of a contract for properties of the product.

Indication of changes
* Data changed compared with the previous version