

SAFETY DATA SHEET

Revision Date 12/22/2023

1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers

Product Name : TENAX®-TA
TENAX-GR
All Mesh Sizes

Registration Number (REACH) : Not Relevant (mixture)

Brand : SKC Inc.

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

Identified Uses : Air Sampling

Uses Advised Against : The product is not intended for consumer use

1.3 Details of the supplier of the safety data sheet

Company : SKC, Inc.
863 Valley View Rd.
Eighty Four, PA 15330
USA

Telephone : 724-941-9701; 800-752-8472 (Mon - Fri, 8:30 a.m. - 5:00 p.m. EST)

Fax : 724-941-1369 (Mon-Fri, 8:30 a.m. - 5:00 p.m. EST)

1.4 Emergency telephone number

Emergency Phone # : CHEMTREC at 800-424-9300 (U.S./Canada); 703-741-5970 (Global)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Section	Hazard class	Category	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	Cat. 2	(Skin Irrit. 2)	H315
3.3	serious eye damage/eye irritation	Cat. 2	(Eye Irrit. 2)	H319
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	Cat. 3	(STOT SE 3)	H335

Remarks

For full text of H-phrases: see SECTION 16.

Additional information

The classification is based on the information that can be found on this product or its equivalents.

No tests are performed.

2.2 Label elements

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

• Signal word: Warning

• Pictograms:

GHS07



• Hazard statements

H315 Causes skin irritation.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.

• **Precautionary statements**

Precautionary statements - prevention

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statements - response

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312 Call a POISON CENTER/doctor if you feel unwell.

Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed.

Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant.

Hazardous ingredients for labelling:

Poly(2,6-diphenyl-1,4-phenylene oxide)

• **Classification system:**

NFPA ratings (scale 0 - 4)



Health = 1
Fire = 1
Reactivity = 0

• **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 1
Reactivity = 0

* Product presents long-term adverse effects.

2.3 Other hazards

There is no additional information.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	wt%	Classification acc. to 1272/2008/EC	Pictograms
Poly(2,6-diphenyl-1,4-phenylene oxide)	CAS No 24938-68-9	70 - 80	Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 STOT SE 3 / H335	

For full text of abbreviations: see SECTION 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Brush off loose particles from skin. - After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms and effects are not known to date.

4.3 Indication of any immediate medical attention and special treatment needed

none

5. FIREFIGHTING MEASURES**5.1 Extinguishing media****Suitable extinguishing media**

water, foam, alcohol resistant foam, dry extinguishing powder, ABC-powder

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Deposited combustible dust has considerable explosion potential.

Hazardous combustion products

carbon monoxide (CO), carbon dioxide (CO₂), hydrogen cyanide (HCN, prussic acid)

5.3 Advice for firefighters

Do not inhale explosion or combustion gases

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

6. ACCIDENTAL RELEASE MEASURES**6.1 Personal precautions, protective equipment and emergency procedures****For non-emergency personnel**

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose it. Damp down dust w/water spray.

6.3 Methods and material for containment and cleaning up**Advices on how to contain a spill**

Covering of drains. - Take up mechanically.

Advices on how to clean up a spill

Take up mechanically.

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

7. HANDLING AND STORAGE**7.1 Handling****• Precautions for safe handling**

Store in cool, dry place in tightly closed receptacles.
Prevent formation of dust.

• Information about protection against explosions and fires: The product is flammable.

Conditions for safe storage, including any incompatibilities**Storage:**

- **Requirements to be met by storerooms and receptacles:** No special requirements.

- **Information about storage in one common storage facility:**

- Store away from foodstuffs.

- Store away from oxidizing agents.

- Store away from reducing agents.

7.2 Precautions for safe handling**Recommendations**

- **Measures to prevent fire as well as aerosol and dust generation**

- Use local and general ventilation. Take precautionary measures against static discharge. Use only in well-ventilated areas.

- Ground/bond container and receiving equipment.

- **Warning**

- Dust deposits may accumulate on all deposition surfaces in a technical room. The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Advice on general occupational hygiene

Wash hands after use. Do not to eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feeding stuffs.

7.3 Conditions for safe storage, including any incompatibilities**Managing of associated risks**

- **Explosive atmospheres**

- Removal of dust deposits.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice

- **Ventilation requirements**

- Use local and general ventilation.

7.4 Specific end use(s)

See section 16 for a general overview.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**SECTION 8: Exposure controls/personal protection****8.1 Control parameters****National limit values****Occupational exposure limit values (Workplace Exposure Limits)**

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Source
GB	dust		WEL		10			EH40/2005
GB	dust		WEL		4			EH40/2005
GB	graphite		WEL		10			EH40/2005
GB	graphite		WEL		4			EH40/2005

Notation

STEL Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

8.2 Exposure controls**Appropriate engineering controls**

General ventilation.

Individual protection measures (personal protective equipment)**Eye/face protection**

Wear eye/face protection. Use safety goggle with side protection. (EN166).

Skin protection

- **hand protection**

- Chemical protection gloves are suitable, which are tested according to EN 374.

- **type of material**

- NR: natural rubber, latex

- **breakthrough times of the glove material**

- >480 minutes (permeation: level 6)

- **other protection measures**

Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

Particulate filter device (EN 143). P3 (filters at least 99,95 % of airborne particles, colour code: White).

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance

Physical state	solid (powder)
Colour	dark grey - black
Odour	odourless

Other physical and chemical parameters

pH (value)	
Melting point/freezing point	460 °C
Initial boiling point and boiling range	not determined
Flash point	not applicable
Evaporation rate	not determined
Flammability (solid, gas)	
Explosion limits of dust clouds	not determined
Vapour pressure	not determined
Density	Tenax-GR = 0.4 g/cm ³ Tenax-TA = 0.25 g/cm ³
Solubility(ies)	not determined
Partition coefficient	
n-octanol/water (log KOW)	This information is not available.
Auto-ignition temperature	not determined
Viscosity	not relevant (solid matter)
Explosive properties	none
Oxidising properties	none

9.2 Other information

Solvent content	0 %
Solid content	100 %

10. STABILITY AND REACTIVITY

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials".

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

Hints to prevent fire or explosion

The product in the delivered form is not dust explosion capable; the enrichment of fine dust however leads to the danger of dust explosion.

Physical stresses which might result in a hazardous situation and have to be avoided

static discharges

10.5 Incompatible materials

There is no additional information.

10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification according to GHS (1272/2008/EC, CLP)

Acute toxicity

Shall not be classified as acutely toxic.

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Summary of evaluation of the CMR properties

Shall not be classified as germ cell mutagenic, carcinogenic nor as a reproductive toxicant.

Specific target organ toxicity (STOT)

• Specific target organ toxicity - single exposure

May cause respiratory irritation.

• Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

Endocrine disrupting potential

None of the ingredients are listed.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

Whatever cannot be saved for recovery or recycling should properly be disposed of through approved waste disposal facility.

14. TRANSPORT INFORMATION

- 14.1 UN number (not subject to transport regulations)
- 14.2 UN proper shipping name not relevant
- 14.3 Transport hazard class(es)
Class -
- 14.4 Packing group not relevant
- 14.5 Environmental hazards none (*non-environmentally hazardous acc. to the dangerous goods regulations*)
- 14.6 Special precautions for user
There is no additional information.
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
The cargo is not intended to be carried in bulk.

15. REGULATORY INFORMATION

- 15.1 **SARA**
- **SARA 302/304**
None of the ingredients is listed.
 - **SARA 313**
None of the ingredients is listed.
 - **SARA 311/312 Immediate (Acute) Health Hazard.**
 - **TSCA (Toxic Substances Control Act):**
Substance(s) may be exempt under food and drug, pharmaceutical, Research & Development or low volume exemptions
Inventory listing could not be confirmed for one or more substances.
- Proposition 65**
- **Chemicals known to cause cancer:**
None of the ingredients is listed.
 - **Chemicals known to cause reproductive toxicity for females:**
None of the ingredients is listed.
 - **Chemicals known to cause reproductive toxicity for males:**
None of the ingredients is listed.
 - **Chemicals known to cause developmental toxicity:**
None of the ingredients is listed.
- Carcinogenic categories**
- **EPA (Environmental Protection Agency)**
None of the ingredients is listed.
 - **TLV (Threshold Limit Value established by ACGIH)**
None of the ingredients is listed.
 - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
None of the ingredients is listed.
 - **Canadian DSL**
Inventory listing could not be confirmed for one or more substances.
 - **Canadian NDSL**
All substances are listed or exempt from listing.
 - **European EINECS**
Inventory listing could not be confirmed for one or more substances.

- **Philippines Inventory of Chemicals and Chemical Substances PICCS**
Inventory listing could not be confirmed for one or more substances.
- **Inventory of the Existing Chemical Substances manufactured or imported in China IECSC**
Inventory listing could not be confirmed for one or more substances.
- **Australian Inventory of Chemical Substances AICS**
Inventory listing could not be confirmed for one or more substances.
- **Existing and New Chemical Substance List ENCS**
24938-68-9 poly(2,6-diphenyl-1,4-phenylene oxide) 7-1459
activated carbon (coal based)
- **Korean Existing Chemical Inventory KECI**
Inventory listing could not be confirmed for one or more substances.

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

Relevant provisions of the European Union (EU)

- **Restrictions according to REACH, Annex XVII**
None of the ingredients are listed.
- **List of substances subject to authorisation (REACH, Annex XIV)**
None of the ingredients are listed.
- **Limitation of emissions of volatile organic compounds due to the use of organic solvents in certain paints and varnishes and vehicle refinishing products (2004/42/EC, Deco-Paint Directive)**
VOC content 0 %
- **Directive on industrial emissions (VOCs, 2010/75/EU)**
VOC content 0 %
- **Directive 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS) - Annex II**
None of the ingredients are listed.
- **Regulation 166/2006/EC concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)**
None of the ingredients are listed.
- **Directive 2000/60/EC establishing a framework for Community action in the field of water policy (WFD)**
None of the ingredients are listed.
- **Explosives precursors which are subject to restrictions**
None of the ingredients are listed.

15.3 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

16. OTHER INFORMATION

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DOT	US Department of Transportation
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits, Table 1: List of approved workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
Eye Dam.	seriously damaging to the eye

Eye Irrit.	irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
LC50	Lethal concentration, 50 percent
LD50	Lethal dose, 50 percent
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NFPA	National Fire Protection Association (USA)
PBT	Persistent, Bioaccumulative and Toxic
ppm	parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Skin Corr.	corrosive to skin
Skin Irrit.	irritant to skin
STOT SE	specific target organ toxicity - single exposure
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative

Key literature references and sources for data

- Regulation (EC) No. 1907/2006 (REACH), amended by 2015/830/EU
- Regulation (EC) No. 1272/2008 (CLP, EU GHS)

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards/environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

The classification is based on the information that can be found on this product or its equivalents. No tests are performed.

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H315	causes skin irritation
H319	causes serious eye irritation
H335	may cause respiratory irritation

Disclaimer

For approved uses only. Not for drug, household, or other uses.

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide. SKC Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Latest Change(s): Updated SDS to bring into compliance with the GHS

Last Update: December 2023