

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

**1 Identification**· **Product identifier**· **Trade name:** **SONGNOX® 2450**· **CAS Number:**

36443-68-2

· **EC number:**

253-039-2

· **Recommended use:**

Antioxidant

Plastic additive

· **Restrictions on use:** Uses not specified· **Details of the supplier of the safety data sheet**· **Manufacturer/Supplier:**

Songwon Industrial Co., Ltd.

83, Jangsaengpo-ro, Nam-gu, Ulsan, Korea

Tel: +82 (0)52-273-9841

Fax: +82 (0)52-272-3528

Email: sds@songwon.com

Songwon International AG

Walzmühlestrasse 48

CH-8500 Frauenfeld

Tel: +41 (0)52 635 00 00

Fax: +41 (0)52 635 00 01

Email: sds@songwon.com

· **Emergency telephone number:**

North East Asia / South East Asia: Call Songwon Ind. Tel: +82 (0)52-273-9841

Europe / Middle East / India / Africa: Call BIG Tel: +32 (0)14-584545

Americas: Call CHEMTREC Day or Night DOMESTIC NORTH AMERICA 1-800-424-9300

INTERNATIONAL, CALL USA 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**· **Classification of the substance or mixture**

Combustible Dust May form combustible dust concentrations in the air.

· **Additional information:**

Granular or free flow product grades may form combustible dust concentrations in air if processing activities significantly reduce the particle size (e.g. mechanical or pneumatic conveying, grinding, pulverizing).

The powder grades of this product may form combustible dust concentrations in air.

· **Label elements**· **GHS label elements**

The substance is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms** Void· **Signal word** Warning· **Hazard statements**

May form combustible dust concentrations in the air.

(Contd. on page 2)

— US —

## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

Trade name: SONGNOX® 2450

(Contd. of page 1)

**Additional information:**

Granular or free flow product grades may form combustible dust concentrations in air if processing activities significantly reduce the particle size (e.g. mechanical or pneumatic conveying, grinding, pulverizing).

The powder grades of this product may form combustible dust concentrations in air.

**Other hazards****Results of PBT and vPvB assessment****PBT:** No**vPvB:** No

### 3 Composition/information on ingredients

**Chemical characterization: Substances****CAS No. Description**

36443-68-2 ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate] 100%

**Identification number(s)****EC number:** 253-039-2

### 4 First-aid measures

**Description of first aid measures****General information:**

Take affected persons out of danger area and lay down.

In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation:** Supply fresh air.**After skin contact:** Generally the product does not irritate the skin.**After eye contact:**

Rinse opened eye for several minutes under running water.

Remove contact lenses, if present and easy to do. Continue rinsing.

**After swallowing:** Rinse out mouth and then drink plenty of water.**Information for doctor:****Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

### 5 Fire-fighting measures

**Extinguishing media****Suitable extinguishing agents:**

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Use fire fighting measures that suit the environment.

**For safety reasons unsuitable extinguishing agents:** Water with full jet**Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

In case of fire, the following can be released:

Carbon monoxide

(Contd. on page 3)

US

## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

Trade name: SONGNOX® 2450

(Contd. of page 2)

Carbon dioxide

- **Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**  
Cool endangered receptacles with water spray.  
Collect contaminated fire fighting water separately. It must not enter the sewage system.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation.  
Wear protective clothing.  
Avoid formation of dust.  
Keep away from ignition sources.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Pick up mechanically.  
Dispose of the collected material according to regulations.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Prevent formation of dust.  
Any deposit of dust which cannot be avoided must be regularly removed.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:**  
Dust can combine with air to form an explosive mixture.  
Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** Store only in the original receptacle.
- **Information about storage in one common storage facility:** Store away from oxidizing agents.
- **Further information about storage conditions:**  
Store in cool, dry conditions in well sealed receptacles.  
Protect from heat and direct sunlight.
- **Specific end use(s)** No further relevant information available.

### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see section 7.

(Contd. on page 4)

— US —

## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

**Trade name: SONGNOX® 2450**

(Contd. of page 3)

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional Occupational Exposure Limit Values for possible hazards during processing:**  
 PEL: 15\* 5\*\* mg/m<sup>3</sup>  
     \* total dust   \*\*respirable fraction  
 REL: 10\* 5\*\* mg/m<sup>3</sup>  
     \* total dust   \*\*respirable fraction  
 TLV: 10 mg/m<sup>3</sup>  
     Dust Value
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
 Do not eat, drink, smoke or sniff while working.  
 Keep away from foodstuffs, beverages and feed.  
 The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **Protection of hands:**



Protective gloves

Only use chemical-protective gloves with CE-labeling of category III.  
 The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
 Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing
- **Limitation and supervision of exposure into the environment** No further relevant information available.

## 9 Physical and chemical properties

### · Information on basic physical and chemical properties

#### · General Information

##### · Appearance:

Form: Solid in various forms

Color: Whitish

· **Odor:** Not determined.

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

(Contd. on page 5)

— US —

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

Trade name: SONGNOX® 2450

(Contd. of page 4)

· <b>Change in condition</b> Melting point/Melting range: Boiling point/Boiling range:	78.4 °C (173.1 °F) (DSC) Not applicable.
· <b>Flash point:</b>	> 150 °C (> 302 °F)
· <b>Flammability (solid, gaseous):</b>	Product is not flammable.
· <b>Auto igniting:</b>	Not determined.
· <b>Decomposition temperature:</b>	> 300 °C (> 572 °F) (TGA measurements)
· <b>Danger of explosion:</b> · <b>Explosion limits:</b> Lower: Upper: · <b>Oxidizing properties</b>	Product is not explosive. However, formation of explosive air/dust mixtures are possible.  Not applicable. Not applicable. No
· <b>Vapor pressure at 20 °C (68 °F):</b>	< 0.0001 hPa (< 0 mm Hg) (effusion method)
· <b>Density at 20 °C (68 °F):</b> · <b>Relative density</b> · <b>Vapor density</b> · <b>Evaporation rate</b>	1.15 g/cm <sup>3</sup> (9.59675 lbs/gal) (pycnometer) Not determined. Not applicable Not applicable
· <b>Solubility in / Miscibility with Water at 22 °C (71.6 °F):</b>	0.000104 g/L (column elution method)
· <b>Partition coefficient (n-octanol/water) at 23 °C (73.4 °F):</b> Not determined.	4.7 log POW (pH 6.4, OECD Guideline 117)
· <b>Viscosity:</b> Dynamic: Kinematic:	 Not applicable. Not applicable.
· <b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability** No decomposition if used and stored according to specifications.
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

— US —

(Contd. on page 6)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

Trade name: SONGNOX® 2450

(Contd. of page 5)

### 11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:** Based on available data, the classification criteria are not met.

· **LD/LC50 values that are relevant for classification:**

Oral	LD50	> 7000 mg/kg (Rat) (OECD Guideline 423)
Dermal	LD50	> 2000 mg/kg (Rat) (OECD Guideline 402)

· **Primary irritant effect:**

· **on the skin:** Based on available data, the classification criteria are not met.

· **on the eye:** Based on available data, the classification criteria are not met.

· **Sensitization:** Based on available data, the classification criteria are not met.

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)** Substance is not listed.

· **NTP (National Toxicology Program)** Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)** Substance is not listed.

### \* 12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

LC50 (96h) (static)	43 mg/L (fish) (OECD Guideline 203, Lepomis macrochirus)
EC50 (48h) (static)	> 100 mg/L (Daphnia) (OECD Guideline 202, read-across, Daphnia magna)
EC50 (72h) (static)	> 100 mg/L (algae) (EU Method C.3, Desmodesmus subspicatus)
NOEC (21d) (dynamic)	0.0055 mg/L (Daphnia) (OECD Guideline 211, Daphnia magna)
NOEC	0.0088 mg/L (fish) (OECD Guideline 210, Pimephales promelas) 32d
IC50 (3h) (static)	> 100 mg/L (Bacteria) (OECD Guideline 209, activated sludge)

· **Persistence and degradability**

Not readily biodegradable

3 % (28 d, OECD Guideline 301 B)

· **Behavior in environmental systems:**

· **Bioaccumulative potential**

Not worth-mentioning accumulation in organisms

7.43 BCF (QSAR)

· **Mobility in soil** 10 log Koc (QSAR)

· **Ecotoxicological effects:**

· **Remark:**

No effects at its water solubility.

Tested above the maximum solubility.

· **Other adverse effects** No further relevant information available.

— US —

(Contd. on page 7)

## Safety Data Sheet

acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023



Trade name: SONGNOX® 2450

(Contd. of page 6)

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:** Must be specially treated adhering to official regulations.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

### 14 Transport information

· <b>UN-Number</b>	UN3077
· <b>DOT, ADR/RID/ADN, IMDG, IATA</b>	
· <b>UN proper shipping name</b>	Environmentally hazardous substance, solid, n.o.s. (ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate])
· <b>DOT</b>	
· <b>ADR/RID/ADN</b>	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate])
· <b>IMDG</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate]), MARINE POLLUTANT
· <b>IATA</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ethylenebis(oxyethylene) bis[3-(5-tert-butyl-4-hydroxy-m-tolyl)propionate])
· <b>Transport hazard class(es)</b>	
· <b>DOT, ADR/RID/ADN, IMDG, IATA</b>	
 	
· <b>Class</b>	9 Miscellaneous dangerous substances and articles
· <b>Label</b>	9
· <b>Packing group</b>	III
· <b>DOT, ADR/RID/ADN, IMDG, IATA</b>	
· <b>Environmental hazards:</b>	
· <b>Marine pollutant:</b>	Yes (DOT) Symbol (fish and tree)
· <b>Special marking (ADR/RID/ADN):</b>	Symbol (fish and tree)
· <b>Special marking (IATA):</b>	Symbol (fish and tree)
· <b>Special precautions for user</b>	Warning: Miscellaneous dangerous substances and articles
· <b>Hazard identification number (Kemler code):</b>	90

(Contd. on page 8)

**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

Trade name: SONGNOX® 2450

(Contd. of page 7)

· <b>EMS Number:</b>	F-A,S-F
· <b>Stowage Category</b>	A
· <b>Stowage Code</b>	SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
· <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:</b>	Not applicable.
· <b>Transport/Additional information:</b>	
· <b>DOT</b>	
· <b>Remarks:</b>	Special marking with the symbol (fish and tree).
· <b>UN "Model Regulation":</b>	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (ETHYLENEBIS(OXYETHYLENE) BIS[3-(5-TERT-BUTYL-4-HYDROXY-M-TOLYL)PROPIONATE]), 9, III

**15 Regulatory information**

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **SARA**
- **Section 355 (extremely hazardous substances):** Substance is not listed.
- **Section 313 (Specific toxic chemical listings):** Substance is not listed.
- **TSCA (Toxic Substances Control Act) Inventory:** ACTIVE
- **Hazardous Air Pollutants** Substance is not listed.
- **Proposition 65**
- **Chemicals known to cause cancer:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for females:** Substance is not listed.
- **Chemicals known to cause reproductive toxicity for males:** Substance is not listed.
- **Chemicals known to cause developmental toxicity:** Substance is not listed.
- **New Jersey Right-to-Know List:** Substance is not listed.
- **New Jersey Special Hazardous Substance List:** Substance is not listed.
- **Pennsylvania Right-to-Know List:** Substance is not listed.
- **Pennsylvania Special Hazardous Substance List:** Substance is not listed.
- **Carcinogenicity categories**
- **EPA (Environmental Protection Agency)** Substance is not listed.
- **TLV (Threshold Limit Value)** Substance is not listed.
- **NIOSH-Ca (National Institute for Occupational Safety and Health)** Substance is not listed.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:**  
Chemservice S. A.  
13, Fausermillen  
L-6689 Mertert, Luxembourg  
Tel.: +352 270776-1  
Fax: +352 270776-75

(Contd. on page 9)

— US —



**Safety Data Sheet**  
acc. to OSHA HCS

Printing date 09/20/2023

Version No: 12.03

Reviewed on 09/20/2023

**Trade name: SONGNOX® 2450**

(Contd. of page 8)

Email: sds@chemservice-group.com

· **Date of preparation / last revision 09/20/2023**· **Abbreviations and acronyms:**

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals

MARPOL: (from Marine Pollutant) International Convention for the Prevention of Marine Pollution from Ships

IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk

UN: United Nations (also UNO: United Nations Organization)

NOEC: No Observed Effect Concentration

OECD: Organisation for Economic Co-operation and Development

ASTM: American Society for Testing and Materials

WAF: Water Accommodated Fraction

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety &amp; Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

· **\* Data compared to the previous version altered.**

— US —