

Printing date 05/08/2024 Version No: 8.04 Reviewed on 05/08/2024

1 Identification

- · Product identifier
- · Trade name: SONGNOX® 1024

SONGNOX® 1024 PW, SONGNOX® 1024 FF, SONGNOX® 1024 FG

· CAS Number:

32687-78-8

EC number:

251-156-3

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.

· 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,

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pulverizing).

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

- · Classification system:
- · NFPA ratings (scale 0 4)

Combustible dust hazard for products supplied in powder form or if converted or reduced to small particles during further processing, handling, or by other means.

· HMIS ratings (scale 0 - 4)

Combustible dust hazard for products supplied in powder form if converted or reduced to small particles during further processing, handling, or by other means.

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

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

32687-78-8 2',3-bis[[3-[3,5-di-tert-butyl-4-hydroxyphenyl]propionyl]]propionohydrazide

· Identification number(s) · EC number: 251-156-3

4 First-aid measures

- · Description of first aid measures
- · General information:

No special measures required.

If symptoms persist consult doctor.

- · 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 mouth.
- · 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:

CO₂, 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

Carbon dioxide



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Nitrogen oxides (NOx)

- 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.
- · 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/m³

* total dust **respirable fraction

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REL: 10* 5** mg/m³

* total dust **respirable fraction

TLV: 10 mg/m³ 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 and protective skin cream

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:	White	
· Odor:	Odorless	
· Odor threshold:	Not determined.	
· pH-value:	Not applicable.	
· Change in condition		
Melting point/Melting range:	228.6 °C (443.5 °F) (DSC)	
Boiling point/Boiling range:	> 275 °C (> 527 °F) (TGA measurements)	
· Flash point:	Not determined.	
· Flammability (solid, gaseous):	Product is not flammable.	
· Auto igniting:	Not determined.	
· Decomposition temperature:	Not determined.	
· Danger of explosion:	Product is not explosive. However, formation of explosive air/dust mixtures are possible.	
· Explosion limits:		
Lower:	Not applicable.	
Upper:	Not applicable.	
Oxidizing properties	No	

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· Vapor pressure at 20 °C (68 °F):	1.3 - 12 hPa (1 - 9 mm Hg) (TGA measurements)	
· Density at 20 °C (68 °F):	1.11 g/cm³ (9.26295 lbs/gal) (pycnometer)	
Relative density	Not determined.	
· Vapor density	Not applicable.	
· Evaporation rate	Not applicable.	
· Solubility in / Miscibility with		
Water at 20 °C (68 °F):	>5E-6 g/L (column elution method)	
Partition coefficient (n-octanol/water): 4.8 log Pow (23°C °C, OECD Guideline 117)		
· Viscosity:		
Dynamic:	Not applicable.	
Kinematic:	Not applicable.	
· Other information	No further relevant information available.	

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · 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.

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 401)

- · 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)	> 57 mg/L (fish) (OECD Guideline 203, Danio rerio) Read-across
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ErC50 (72h) (static) > 10 mg/L (algae) (OECD Guideline 201, Desmodesmus subspicatus)
EC50 (48h) (static) > 100 mg/L (Daphnia) (OECD Guideline 202, Daphnia magna)

Read-across

EC50 (3h) ≥ 100 mg/L (Bacteria) (EU Method C.11, activated sludge) NOEC (21d) ≥ 10 mg/L (Daphnia) (OECD Guideline 211, Daphnia magna)

Read-across

- · Persistence and degradability Not readily biodegradable
- · Behavior in environmental systems:
- · Bioaccumulative potential Not worth-mentioning accumulation in organisms
- · Mobility in soil max. 7.7413 logKoc
- · Ecotoxical effects:
- · Remark:

No effects at its water solubility.

Tested above the maximum solubility.

· Other adverse effects No further relevant information available.

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	
· UN-Number · DOT, ADR/RID/ADN, IMDG, IATA	Void
· UN proper shipping name	
· DOT, ADR/RID/ADN, IMDG, IATA	Void
· Transport hazard class(es)	
· DOT, ADR/RID/ADN, IMDG, IATA · Class	Void
· Packing group · DOT, ADR/RID/ADN, IMDG, IATA	Void
· Environmental hazards: · Marine pollutant:	No
· Special precautions for user	Not applicable.
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	of Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.
· UN "Model Regulation":	Void
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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available.
- 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:

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Abbreviations and acronyms:

ICAO: International Civil Aviation Organisation

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

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)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

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LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit

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