TECHNICAL DATA SHEET

Section 1: Identification

Product identifier used on the label;

Product name: Joto-Vent Series
Product code: KP-L Series, JVS Series, S Series

Other means of identification;

No information

Recommended use of the chemical and restrictions on use;

Recommended use: Underfloor ventilation material (intended to be used outdoors for wooden houses)
Restrictions on use: Uses other than described above are not recommended.

Name, U.S. address, and U.S. telephone number of the chemical manufacturer, importer, or other responsible party;

Name of supplier (importer): Joto-Vent System USA, Inc.
Department in Charge:
Address: 17530 NE Union Hill Rd Suite 240, Redmond, WA 98052
Telephone number: +1-425-256-2210
Fax number:
e-mail address: info@jotovent.com

Name of manufacturer in Japan: Joto Techno Co., Ltd.
Department in Charge Quality Assurance Division
Address Nissei Yodoyabashi East 14F, 3-3-13 Imabashi, Chuo Ku, Osaka City, Osaka, 541-0042 Japan
Telephone number +81-6-6786-8901
Fax number +81-6-6786-8068

Emergency phone number

+1-800-424-9300

Section 2: Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

The product is an article made from polymer and is stable in general environment and has no physical/chemical hazards.
Considering generation of dust in working process, the Safety Data Sheet describes hazards of the product as mixture.

Physical Hazards

Classification not possible

Health Hazards

Carcinogenicity:	Category 2
Specific target organ toxicity repeated or prolonged exposure:	Category 1 (respiratory organs)

Environmental Hazards

Classification not possible

Other Hazards

No information

Signal word, hazard statement(s), symbol(s) and precautionary statement(s) in accordance with paragraph (f) of §1910.1200;

Symbol(s)

Signal word	**Danger**
Hazard Statement(s)	Suspected of causing cancer. Causes damage to respiratory organs through prolonged or repeated exposure.
Precautionary Statement(s)	
[Prevention]	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe dust/fume/gas/mist/ vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
[Emergency response]	If exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.
[Storage]	Store locked up.
[Disposal]	Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazards classified under paragraph (d)(1)(ii) of § 1910.1200

Suspected of causing cancer.
Causes damage to respiratory organs through prolonged or repeated exposure.

Description of any hazards not otherwise classified;

No information

Ingredient with unknown acute toxicity in the mixture

Not applicable

Section 3: Composition/information on ingredients

Compositions (contents of the product)

Chemical name	CAS registry number	Concentration/concentration ranges (wt %)
Polypropylene and polymers	9003-07-0 9010-79-1 29160-13-2 25895-47-0	99 - 99.5
Carbon Black	1333-86-4	0.5 - 1

Note: The figures shown above are not the specifications of the product.

Section 4: First aid measures

Necessary first-aid measures by relevant routes of exposure;

IF INHALED 【Dust and waste generated in the working process】
Blow your nose, gargle, and rinse mouth and throat.
Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER or doctor/physician if you feel unwell.

IF ON SKIN 【Dust and waste generated in the working process】
Wash with plenty of water and soap.
If skin irritation occurs: Get medical advice/attention.

IF IN EYES 【Dust and waste generated in the working process】
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
Continue rinsing.
If eye irritation persists: Get medical advice/attention.

IF SWALLOWED 【Dust and waste generated in the working process】
Rinse mouth.
Call a POISON CENTER or doctor/physician if you feel unwell.

Most important symptoms/effects, acute and delayed;

Suspected of causing cancer.
Causes damage to respiratory organs through prolonged or repeated exposure.

Indication of immediate medical attention and special treatment needed, if necessary;

No information

Section 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media;

Suitable extinguishing media:

In case of fire, use water mist, foam, dry powder, CO_2 to extinguish.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the chemical;

In case of fire, toxic decomposition substances (carbon monoxide, carbon dioxide, hydrocarbons and their oxides) may be generated.

Special protective equipment and precautions for fire-fighters;

Evacuate non-essential personnel to safe area.
Apply water from a safe distance to cool and protect surrounding area.
Extinguish from the windward.
Wear fire/flame resistant/retardant clothing.
Firefighters should wear self-contained breathing apparatus with full face peace operated positive pressure mode.

Section 6: Accidental release measures

Personal precautions, protective equipment, and emergency procedures;

【In case of leakage of dust/waste generated in the working process】
Keep unauthorized personnel away.
Ventilate area until material pick up is complete.
Wear proper protective equipment.
Be careful not to slip on spilled area.
Do not wash away into sewers or waterway.
Avoid raising dust.

Methods and materials for containment and cleaning up;

Sweep up, place in a bag and hold for waste disposal.
Collect spillage.

Section 7: Handling and storage

Precautions for safe handling

Protective measures:

Install appropriate equipment and wear suitable protective apparatus described in "Section 8: Exposure controls/personal protection".
Take precautionary measures against static discharge.
Avoid breathe dust/fume generated during the working process.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use only outdoors or in a well-ventilated area.
Use personal protective equipment as required.
Do not get in eyes, on skin, or on clothing.
【Dust/fume generated in the working process】
Avoid raising dust.
Avoid contact with the skin.
Avoid contact with the eyes.
Prevent deposition of dust.
Avoid high temperatures, high humidity and sources of ignition (flames, sparks, etc.).

Advice on general occupational hygiene:

Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.

Conditions for safe storage, including any incompatibilities

Technical measures:

In the storage area, install adequate light and ventilation systems to handle hazardous materials.

Incompatible materials:

No information

Conditions for safe storage:

Store in a well-ventilated place.
Keep cool. Protect from sunlight.
Store in a dry place.

Packing material:

Use a sealed container without damage or leakage.

Section 8: Exposure controls/personal protection

Occupational Exposure Limits;

OSHA PEL	3.5 mg/m^3 (Carbon Black)
ACGIH TLV-TWA (2025)	3 mg/m^3 (I) (Carbon Black)
ACGIH TLV-STEL (2025)	Not listed

Appropriate engineering controls;

Do not use in areas without adequate ventilation.
Eye wash station should be available.
Washing facilities should be available.

Individual protection measures, such as personal protective equipment;

Respiratory protection	Wear respiratory protection.
Hand protection	Wear protective gloves. Recommended material(s): impermeable or chemical resistant rubber
Eye protection	Wear chemical safety goggle.
Skin and body protection	Wear protective clothing.

Section 9: Physical and chemical properties

Physical state	Solid (Block-shaped)
Color	Black
Odor (includes odor threshold)	None
Melting point/freezing point	No information
Boiling point (or initial boiling point	No information

or boiling range)	
Flammability	Flammable
Lower and upper explosion limit/flammability limit	No information
Flash point	340 - 400℃ (As Polypropylene)
Auto-ignition temperature	400 - 500℃ (As Polypropylene)
Decomposition temperature	No information
pH	No information
Kinematic viscosity	No information
Solubility	Solubility in water: Insoluble Solubility in solvent: Insoluble
Partition coefficient n-octanol/water (log value)	No information
Vapor pressure (includes evaporation rate)	No information
Density and/or relative density	No information
Relative vapor density	No information
Particle characteristics	No information

Other information

No information

Section 10: Stability and reactivity

Reactivity

Stable under normal storage/handling conditions.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

No hazardous reaction expected under normal handling.

Conditions to avoid

Avoid high temperatures, high humidity and sources of ignition (flames, sparks, etc.).

Incompatible materials

No information

Hazardous decomposition products

In case of fire, toxic decomposition substances (carbon monoxide, carbon dioxide, hydrocarbons and their oxides) may be generated.

Section 11: Toxicological information

Information on the likely routes of exposure

Inhalation, ingestion, skin and eye contact

Symptoms related to the physical, chemical and toxicological characteristics;

Information on product:

Acute toxicity:	No information
Skin corrosion/irritation:	No information
Serious eye damage/irritation:	No information
Respiratory sensitization:	No information
Skin sensitization:	No information
Germ cell mutagenicity:	No information
Carcinogenicity:	No information
Reproductive toxicity:	No information
Specific target organ toxicity single exposure:	No information
Specific target organ toxicity repeated exposure:	No information
Aspiration hazard:	No information
Other toxicological information	No information

Information on ingredients:

Polypropylene and polymers

Acute toxicity:	No information
Skin corrosion/irritation:	No information
Serious eye damage/irritation:	No information
Respiratory sensitization:	No information
Skin sensitization:	No information
Germ cell mutagenicity:	No information
Carcinogenicity:	As Polypropylene IARC: Group3 Not Classifiable as a Human Carcinogen
Reproductive toxicity:	No information
Specific target organ toxicity single exposure:	No information
Specific target organ toxicity repeated exposure:	No information
Aspiration hazard:	No information
Other toxicological information	No information

Carbon Black

Acute toxicity (oral):	Based on LD_{50} values for rats of > 8,000 mg/kg and > 10,000 mg/kg (2 cases), it was classified as "Not classified."

Acute toxicity (dermal):	Classification not possible due to lack of data. Besides, there is a report of an LD_{50} value of > 3,000 mg/kg for rabbits. However, since it was from the information source listed in List 3, and the original article could not be confirmed, it was not adopted for classification.
Acute toxicity (inhalation: gases):	Solid as defined in the GHS
Acute toxicity (inhalation: vapors):	Solid as defined in the GHS
Acute toxicity (inhalation: dust/mist):	Classification not possible due to lack of data.
Skin corrosion/irritation:	There is a report that in a skin irritation test (OECD TG 404) with rabbits, irritation was not observed as a result of an occlusive application of 500 mg of this substance for 4 hours. In addition, there is a report that in another skin irritation test with rabbits, irritation was not observed as a result of applying this substance (20 - 27%). From the above, it was classified as "Not classified."
Serious eye damage/irritation:	There are three reports on eye irritation tests (OECD TG 405) with rabbits, and it is reported in all of them that no irritation by applying this substance (undiluted solution) was observed. From the above, it was classified as "Not classified."
Respiratory sensitization:	Classification not possible due to lack of data.
Skin sensitization:	Classification not possible due to lack of data.
Germ cell mutagenicity:	As for *in vivo*, there are results of being positive in a gene mutation (hprt) test with rat alveolar cells by inhalation exposure and intratracheal instillation, and of being positive and negative in DNA adduct formation tests with rat lungs by inhalation exposure. However, it is pointed out that the positive results may be caused by aromatic polycyclic hydrocarbons contained in this substance or by the generation of active oxygen species associated with inflammation, and this is not considered to suggest mutagenicity of carbon black itself. As for *in vitro*, it showed positive and negative results in bacterial reverse mutation tests, and it was positive in a micronucleus test with mammalian cultured cells, and negative in a mouse lymphoma test and a sister chromatid exchange test. From the above, it is considered that this substance is not mutagenic by itself, and it was classified as "Classification not possible" according to the GHS classification guidance for the Japanese government.
Carcinogenicity:	As for humans, from cohort studies and nested case-control studies mainly in the United Kingdom, Germany, and the United States, there were some reports suggesting the relationship between occupational exposure to this substance and an excess risk of death by lung cancer. However, the results supporting the correlation between both were not obtained for the following reasons: the possibility of the effect of smoking could not be excluded; and a significant difference in excess risk of death by lung cancer disappeared as a result

of correcting the effects of co-exposure to asbestos or talc and so on. Other than these, there are reports which suggested excessive risks for carcinogenicity of the urinary bladder, kidney, stomach, and esophagus, but it was described that neither of these reports was sufficient as evidence to support carcinogenicity of this substance in humans.
On the other hand, as for experimental animals, in all of tests in which Printex 90 (primary particle size: 14 nm, specific surface area: 227 plus or minus 18.8 m^2/g, Mass Median Aerodynamic Diameter (MMAD): 0.64 μm) was given by inhalation exposure to female mice for 13.5 months, to female rats for 43 weeks or 86 weeks, or to female rats for 24 months, increased incidences of pulmonary benign/malignant tumors such as alveolar/bronchiolar adenoma, adenocarcinoma, squamous cell carcinoma were observed. In addition, in a 2-year test in which Elftex 12 (67% of the total particles are large particles (particle size: 2.0 - 2.4 μm; MMAD: 2.0 μm) and 33% are small particles (particle size: 0.02 - 0.1 μm)) was given by inhalation exposure to female and male rats, no increased incidence of lung tumors was shown in males, but a dose-dependent increase in the incidence of lung adenomas and adenocarcinomas was observed in females. Other than these, even in tests where these two kinds of products of this substance were administered intratracheally to female rats, an increase in lung tumors was confirmed.
Based on the human epidemiological findings and animal test results above, IARC classified it in Group 2B and ACGIH in A3. Therefore, it was classified in Category 2 for this hazard class.
IARC: Group2B
Possibly carcinogenic to humans
ACGIH: A3
Confirmed Animal Carcinogen with Unknown Relevance to Humans

Reproductive toxicity: Classification not possible due to lack of data.

Specific target organ toxicity single exposure: Classification not possible due to lack of data.

Specific target organ toxicity repeated exposure: As for humans, it was presumed that by repeated inhalation exposure to this substance in manufacturing plants of this substance, a decrease in pulmonary function, an increase in the incidence of respiratory symptoms, and abnormal findings in chest radiographs would be observed, but in the results of large-scale epidemiological studies covering 19 plants in 7 European countries, a slight decrease in pulmonary function parameters was only suggested as a predicted value after a 40-year exposure at a concentration of 1.0 mg/m^3 (respirable dust, 8-hour TWA). It was estimated that the FEV1 (forced

expiratory volume in 1 second) value would decrease on average by 49, 91, and 169 mL, respectively after a 40-year inhalation exposure at 1, 2, and 3.5 mg/m^3 (8-hour TWA value), however, it was considered as a very slight change when compared with the fact that in adult men, FEV1 decreased by 1,200 mL on average over 40 years due to aging. Also, in research results for North American manufacturing factories, a similar depression of respiratory function of reduced FEV1 by 28 mL was shown by the exposure at 1 mg/m^3 for 40 years, however, it is considered that as for both results in Europe and North America, the decrease in the FEV1 value as an index was a decrease within the range of 95% confidence interval of the normal value of the FEV1 value.

As for experimental animals, in a test in which male rats were exposed by inhalation to this substance for 13 weeks (6 hours/day, 5 days/week), at or above 7.1 mg/m^3 (converted guidance value: 0.0051 mg/L/6 hr), inflammation, hyperplasia, and fibrosis of the alveolar epithelium were observed, a decrease in the dust clearance rate by the lung was also observed, and the NOAEL was 1.0 mg/m^3. In addition, in a test with female and male rats exposed by inhalation for 2 years (16 hours/day, 5 days/week), at or above 2.5 mg/m^3 (converted guidance value: 0.0046 mg/L/6 hr), inflammation, squamous metaplasia, hyperplasia, and chronic-active inflammation of the alveolar epithelium were similarly seen in the lung. Besides, there is a report that as a result of inhalation exposure in female rats, mice, and hamsters for 13 weeks at the same concentration, inflammatory tissue changes in the lungs were clearly seen in rats at or above 7 mg/m^3, and these findings were stronger than in mice and hamsters, on the other hand, the clearance rate from the lung was the fastest in hamsters, and it was suggested that there was a species difference in the adverse effects on the respiratory system and clearance from the lung. Other than these, no adverse effects were observed in a 41-week dermal administration test with mice or 2-year feeding administration tests with rats or mice.

From the above, in the inhalation route, only a slight decrease in respiratory function was suggested for this substance in humans, but as for experimental animals, since a significant tissue change in the lung was shown within the dose range for Category 1, it was classified in Category 1 (respiratory organs).

Aspiration hazard: Classification not possible due to lack of data.

Other toxicological information: No information

Delayed and immediate effects and also chronic effects from short- and long-term exposure;

Suspected of causing cancer.

Causes damage to respiratory organs through prolonged or repeated exposure.

Numerical measures of toxicity (such as acute toxicity estimates);

Not applicable

Interactive effects

No information

Whether the hazardous chemical is listed in the National Toxicology Program (NTP) Report on Carcinogens (latest edition) or has been found to be a potential carcinogen in the International Agency for Research on Cancer (IARC) Monographs (latest edition), or by OSHA.;

NTP Report: Not listed

IARC: Listed as Group 2B (Carbon Black)

OSHA: Not listed

Use of SAR/QSAR/read across

Not applicable

Section 12: Ecological information

Ecotoxicity:

Information on product:	No information
Information on ingredients:	
Polypropylene and polymers	
Aquatic acute toxicity:	No information
Aquatic chronic toxicity:	No information
Carbon Black	
Aquatic acute toxicity:	From 72-hour EC_{50} > 10,000 mg/L for algae (*Desmodesmus subspicatus*), 24-hour EC_{50} > 5,600 mg/L for crustacea (*Daphnia magna*), and 96-hour LC_{50} > 1,000 mg/L for fish (*Leuciscus idus*), it is estimated that the substance does not show such toxicity at its water solubility (insoluble), therefore, it was classified as "Not classified."
Aquatic chronic toxicity:	Acute toxicity was not reported at levels up to the water solubility due to being insoluble in water, and behavior in water and bioaccumulation are unknown. Therefore, the classification is not possible.

Persistence and degradability:

Information on product: No information

Information on ingredients:

Polypropylene and polymers

No information

Carbon Black

No information

Bioaccumulative potential:

Information on product: No information

Information on ingredients:

Polypropylene and polymers

No information

Carbon Black

No information

Mobility in soil:

Information on product: No information

Information on ingredients:

Polypropylene and polymers

No information

Carbon Black

No information

Other adverse effects:

No information

Section 13: Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.
Dispose to an authorized waste collection point.
Do not dump into sewers, on the ground or into any body of water.
Dispose of container after using the contents completely.

Section 14: Transport information

UN number	Not applicable
UN proper shipping name	Not applicable
Transport hazard class(es)	Not applicable
Packing group	Not applicable
Environmental hazards	Not applicable

Transport in bulk according to IMO instruments

Not applicable

Special precautions for user

When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.

Section 15: Regulatory information

OSHA:	Hazardous chemical
TSCA inventory:	All ingredients in this product are listed on the TSCA Inventory.
TSCA SNUR:	Not listed
SARA Title III:	Section 302 (Extremely Hazardous Substances): Not listed
	Section 304 (Hazardous Substances): Not listed
	Section 313 (TRI Chemicals): Not listed

CERCLA Reportable Quantity:

Not listed

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

Not listed

Clean Water Act (CWA) Section 304(b) Priority Pollutants (40 CFR 423 Appendix A):

Not listed

WARNING: This product can expose you to chemicals including carbon black which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Section 16: Other information, including date of preparation or last revision

Update history:

Date of issue: February 6th, 2026

References:

Information of Joto Techno Co., Ltd.
NITE GHS classification results (http://www.safe.nite.go.jp/ghs/list.html). (2025)
ACGIH, American Conference of Governmental Industrial Hygienists (2025) TLVs and BEIs.

[Disclaimer]

This SDS has been prepared based on the best available information however, it may not be sufficient in some cases. It is user's responsibility to modify or update any contents in this SDS regarding information on hazardous properties and/or instruction for safe handling of the product when they become available. Precautionary measures in this SDS are only applicable for normal handling conditions and it is necessary to take appropriate additional measures to ensure safe handling which depend on your specific use conditions or situations.