

SAFETY DATA SHEET**1. PRODUCT AND COMPANY IDENTIFICATION**

Product name: Unplasticized polyvinyl chloride pipe (VP, VU): Cutting chips
 Chemical product name: Mixture whose main component is polyvinyl chloride
 Company name: SEKISUI CHEMICAL CO., LTD.
 Address: 2-10-4 Toranomon, Minato-ku, Tokyo, 105-8566, Japan
 Responsible Dept.: Technology and CS Promotion Department,
 Urban Infrastructure and Environmental Products Company
 Tel: 03-6748-6497
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 Recommended use and use restriction: For the pipes transporting general fluid.

2. HAZARDS IDENTIFICATION

Physical and chemical hazards:	Flammable solid Pyrophoric solid Substances and mixture which, in contact with water, emit flammable gases	Out of category Out of category Out of category
Health hazards:	Unclassifiable	
Environmental hazards:	Unclassifiable	
GHS label element symbol:	Unclassifiable	
Signal word:	Unclassifiable	
Danger/hazards information:	No data available	
Cautions (Cutting chips):	Avoid inhalation of cutting chips, dust and the like. Wear specified personal protective equipment. After handling, thoroughly wash hands. Do not eat/drink and smoke at the place where dust generation is observed. Avoid discharge to the environment.	
First aid measures:	IF INHALED, remove the victims to fresh air and keep at rest in a position comfortable for breathing. In the case of exposure or possible exposure, get medical advice/attention. When feeling sick, get medical advice/attention.	
Storage:	Store the product while taking measures to prevent leakage of the cutting chips.	
Disposal:	Dispose of the content and containers by entrusting the disposal to a professional waste disposal contractor licensed by the local governor.	

3. COMPOSITION/INFORMATION ON INGREDIENTS

Classification of single component or mixture:	Mixture	
Components:		Content
	Polyvinyl chloride	92–95%
	Lead compounds	1.0–2.0%
	Others	4–7%

4. FIRST AID MEASURES

IF INHALED (Cutting chips):	<ul style="list-style-type: none">- Remove the victims to fresh air and keep at rest in a position comfortable for breathing.- Get medical advice/attention, if necessary.
IF ON SKIN (Cutting chips):	<ul style="list-style-type: none">- Wash the skin promptly.- Get medical advice/attention, if necessary.
IF IN EYES (Cutting chips):	<ul style="list-style-type: none">- Wash carefully with water for several minutes.- Get medical advice/attention, if necessary.
IF SWALLOWED (Cutting chips):	<ul style="list-style-type: none">- Rinse mouth.- Get medical advice/attention, if necessary.

5. FIRE FIGHTING MEASURES

Fire extinguishing media:	<ul style="list-style-type: none">- Small fire: Dry chemical powder, carbon dioxide, water- Large fire: Water, water spraying, normal foam extinguisher
Specific danger/hazards:	There is a possible danger of generating irritating, poisonous or corrosive gases at a some kind of fire.
Specific firefighting method:	<ul style="list-style-type: none">- Remove the containers from the fire area, if it is not so dangerous.- In the case of huge fire, use unmanned hose holder or monitor nozzles for firefighting. <p>If such work is not possible, evacuate from the area and let the fire burned out.</p>
Protection of the firefighters:	During the firefighting work, wear air respirator and chemical protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Cautions for personnel:	When dust is generated by polyvinyl chloride pipe cutting, wear proper protective equipment to prevent exposure to eyes/skin and inhalation. (Refer to the description of "8. EXPOSURE CONTROL/PERSONAL PROTECTION.")
Cautions to the environment:	Be careful not to cause environmental effect by discharging to the rivers and the like. Never discharge to the environment.
Recovery:	When dust is generated by cutting the polyvinyl chloride pipes, sweep and recover them into a vacant container, and dispose of them later.
Prevention of secondary disaster:	When dust is generated by cutting polyvinyl chloride pipes, well clean the floor frequently to prevent occurrence of slippery floor surface.

7. HANDLING AND STORAGE

Handling (Cutting chips)

- Engineering measures: - Take engineering measures described in the “8. EXPOSURE CONTROL/PERSONAL PROTECTION,” and wear protective equipment.
- Local ventilation/general ventilation: - Local ventilation and general ventilation shall be done according to the description of “8. EXPOSURE CONTROL/PERSONAL PROTECTION.”
- Cautions for safe handling: - Do not inhale or swallow.(Cutting chips)
 - Conduct exhaust ventilation to keep the concentration in air equal to or lower than the exposure limit. (When dust is generated by cutting the pipes.)
 - Wash hands well, after handling.
 - Use only outdoors or in a well ventilated area.
 - Avoid discharge to the environment. (When dust is generated by cutting.)
- Avoid contact: - Refer to the description of “10. STABILITY AND REACTIVITY.”

Storage (Cutting chips)

- Engineering measures: Keep fire away.
- Storage conditions: No specific engineering measure is necessary.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Control concentration

	Control concentration	Permissible concentration (permissible exposure limit, biological exposure index)	
		Japan Society for Occupational Health (2010 edition)	ACGIH (2010 edition)
Lead compound	0.05 mg/m ³ (as Pb)	0.1 mg/m ³ (as Pb)	Not established

- Engineering measures: - Install eye-washing equipment and safety shower for the work of storing and handling the product. (When dust is generated by cutting the pipes.)
 - Handling shall be done in an area with a general ventilation equipment. (When dust is generated by cutting.)
 - When dust is generated in a process of high temperature handling, install ventilation equipment to keep the air polluting substance concentration equal to or lower than the control concentration permissible exposure limit.

Protective equipment

- Respiratory protective equipment: - Use personal respiratory equipment, if required.
 - In the case of insufficient ventilation, wear proper respiratory protective equipment. (When dust is generated by cutting the pipes.)
- Hand protective equipment: Wear personal hand protective equipment, if required.
- Eye protective equipment: Wear personal eye protective equipment, if required.
- Skin and body protective equipment: Wear personal protective clothing and protective face shield, if required.
- Hygiene measures: Wash hands well after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Physical property:	Solid
	State:	Molded polyvinyl chloride pipes (At cutting, cutting chips and dust are generated.)
	Color:	Gray and other colors
Odor:		No odor
pH:		No data available
Melting point/freezing point:		No data available
Boiling point, initial boiling point and boiling range:		Not applicable
Flash point:		391°C
Combustibility or explosion limit:		No data available
Vapor pressure:		No data available
Vapor density (air = 1):		No data available
Specific gravity (density):		1.43 g/cm ³
Solubility:		No data available
n-Octanol/water partition coefficient:		No data available
Spontaneous ignition temperature:		454°C
Odor threshold value:		No data available
Evaporation rate (Butyl acetate = 1):		No data available
Combustibility (Solid, gas):		No data available
Viscosity:		No data available

10. STABILITY AND REACTIVITY

Stability:	Stable under the normal conditions.
Possibility of hazardous reaction:	No information available
Conditions to avoid:	No information available
Incompatible hazardous substances:	No information available
Dangerous decomposition product:	Combustion causes generation of carbon monoxide, carbon dioxide, hydrogen chloride, lead oxide and the like.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	Oral:	Unclassifiable because of insufficient data
	Dermal:	Unclassifiable because of insufficient data
	Inhalation:	Unclassifiable because of insufficient data
Skin corrosion/irritation:		Unclassifiable because of insufficient data
Serious eye damage/irritation:		Unclassifiable because of insufficient data
Respiratory sensitization:		Unclassifiable because of no data
Skin sensitization:		Unclassifiable because of insufficient data
Germ cell mutagenicity:		Unclassifiable because of insufficient data
Carcinogenicity:		Unclassifiable because of insufficient data
Reproductive toxicity:		Unclassifiable because of insufficient data
Specific target organ systemic toxicity (single exposure):		Unclassifiable because of insufficient data.
Specific target organ systemic toxicity (repeated exposure):		Unclassifiable because of insufficient data
Aspiration respiratory hazards:		Unclassifiable because of no data

12. ECOLOGICAL INFORMATION

Hazardous to aquatic environment (acute):	Unclassifiable because of insufficient data
Hazardous to aquatic environment (chronic):	Unclassifiable because of insufficient data

13. DISPOSAL CONSIDERATION

Residual waste	<ul style="list-style-type: none">- At the disposal, abide by the relevant laws/regulations and the standards of the local government.- Dispose of it by entrusting the disposal to an industrial waste disposal contractor licensed by the prefectural governor or the local government itself in the case it is conducting the disposal by itself.- When entrusting the disposal of the waste to a contractor, the danger/hazards should be clearly notified to them in advance.
Contaminated containers and packaging (Cutting chips):	Not applicable

14. TRANSPORT INFORMATION

International regulations	Marine transport control:	Non-hazardous material
	Air transport control:	Non-hazardous material
Domestic regulations	Land transport control:	Not applicable
	Marine transport control:	Non-hazardous material
	Air transport control:	Non-hazardous material
Specific safety measurement (Cutting chips):		<ul style="list-style-type: none">- Keep fire away.- Avoid scattering the cutting chips caused by container damages (the container for cutting chips) and the like.

15. REGULATORY INFORMATION

Industrial Safety and Health Law:	<ul style="list-style-type: none">- Hazardous substances whose name shall be indicated (labeled). (Industrial Safety and Health Law, Article 57-2, Enforcement Ordinance Article 18-2, Appended Table 9)- Hazardous substances whose name shall be indicated (labeled). (Industrial Safety and Health Law, Article 57-1, Enforcement Ordinance Article 18) (Lead compound)- Lead compound (Enforcement Ordinance Appended Table 4, Ordinance on Prevention of Lead Poisoning, Article 1-4, Cabinet Ordinance No. 91, 1972)
Law for PRTR (Pollutant Release and Transfer Register) and Promotion of Chemical Management (PRTR Law):	Class 1 Designated Chemical Substance, Specific class 1, Designated Chemical Substance (Law Article 2-2, Enforcement Ordinance Article 1, Appended Table 1, Enforcement Ordinance Article 4) (Old substance name: Lead and Lead compound)
Water Pollution Control Law:	Hazardous substance (Law Article 2, Enforcement Ordinance Article 2, Ministerial Ordinance specifying the Waste Water Standards Article 1) (Lead and Lead compound)
Air Pollution Control Law:	Hazardous materials (Law Article 2-1-3, Enforcement Ordinance Article 1) (Lead and Lead compound)
Soil Contamination Countermeasure Law:	Specific Hazardous Substances (Law Article 2-1, Enforcement Ordinance Article 1) (Lead and Lead compound)
Waste Disposal and Public Cleansing Law:	Specially-controlled industrial waste (Law Article 2-5, Enforcement Ordinance Article 2-4) (Specially-controlled industrial waste containing lead and lead compound)
Labor Standards Law:	Disease-causing chemical substances (Law Article 75-2, Enforcement Ordinance Article 35, Appended Table 1-2 No. 4-1, Ministerial Order No. 36, 1978) (Lead and Lead compound)

16. OTHER INFORMATION

References:	NITE GHS Classification Data Notification Product MSDSs
Cautions	<ul style="list-style-type: none">- GHS classification is not applicable to the unplasticized polyvinyl chloride pipes, because they are molded products. However, the GHS classification is applied, supposing the fine dust particles are generated during handling like cutting.- This information can be revised by the new knowledges and test data information.- The descriptions herein are prepared based on the generally-available information and our in-house information, however, they do not cover all the information available at present concerning the chemical and technology. Therefore, we do not intend to guarantee anything concerning the matter.- Cautions are for normal handling. For special handling, it is the obligation of each user of the product to provide adequate safety measures suited for the applications and usages.