



# Precautions to ensure safe usage

The precautions given below are intended to ensure safe and correct use of the products.  
Note that certain restrictions apply to use of these products. Failure to observe these could result in injury or property damage.

 <b>Warning</b>	A potentially hazardous situation which could result in death or serious injury.
 <b>Caution</b>	A dangerous situation which could result in minor or medium injury and/or in which only property damage is foreseen.

**Warning** TOYOX products have been developed and manufactured for general industrial applications.  
For applications that require safety, confirm in advance.  
Never use for implant or injection application or other applications where there is a possibility of the product partially remaining in the body.  
Toyox makes no guarantee of the adaptability or safeness related to such applications.  
Please read the Handling Precautions carefully before use.

Note: See the terminology glosses on our website for words marked with a ※.

## TOYOFOODS EARTH Hose

1. The fluids that can be used are powder and granular foods.
2. Liquid left inside the hose may be affected by a plastic smell, rendering them unsuitable for use. Always check beforehand.
3. Always clean the hose out before using with food and/or drink products.  
※ Clean the hose with hot water ( less than 80°C centigrade ) for less than 30 minutes at a pressure lower than 0.1MPa.
4. Always use a hose within a range of temperature, -5 to 70 °C.
5. Always use a hose within its recommended pressure range. The working pressure of the hose is -0.1 to 0.2MPa ( 50°C ) , -0.05 to 0.1MPa ( 70°C ) . ※ Please note that -0.1 MPa is an approximate value.Refer to the " Use condition reference values for TOYOX vacuum hoses " ( Terms explained, Fig. 1 ) regarding guidelines for negative pressure use ranges.
6. Never use a hose at less than its ※minimum bend radius.  
If you use a hose at less than its minimum bend radius, it may break or the withstanding pressure may decrease.
7. The hose is prone to wear under certain conditions. Use a hose with as large a bending radius as possible.
8. Do not store the product outdoors or in direct sunlight.
9. Do not allow anything other than the inner surface of the couplings or hose to come in contact with fluids ( food, etc. ), because the fluids may permeate the hose reinforcement layer or remain inside the couplings, and bacteria may propagate ( attach to the parts ) or the hose may deteriorate. Also, dust, hose fragments ( reinforcement material ) and ink adhering to the outer surface may be mixed in.
10. **Warning** To prevent static electricity of the hose, be sure to connect the antistatic lines to dedicated earth clips or grounded equipment or buildings and check the conductivity before use. ( For examples of conductivity checking and grounding clip mounting, visit the TOYOFOODS EARTH HOSE web pages for details. )
11. The antistatic performance of the hose varies depending on the operating conditions, so be sure to check before using.
12. **Warning** The TOYOFOODS EARTH HOSE does not guarantee disaster prevention.Be sure to carry out safety management.
13. **Warning** The antistatic lines are intended to prevent static, and cannot be used as grounding or bonding lines for connecting devices, or for other electrical connection applications. As well, it has no electrical neutralization function for fluids. Prepare other countermeasures for fluid neutralization. Toyox assumes no responsibility for injury or property damage taking place in the vicinity of the hose terminal ends.
14. Keep hose away from exposed light fixtures. Do not use the hose near a flammable object ( gasoline, solvent, etc. ).
15. The life of the hose can vary substantially depending on factors such as the physical properties of the fluid, the temperature and flow rate, and frequency of compression and decompression. If any of the following abnormalities a sign is found at the every-day's check up or the regular inspection, stop using the hose immediately, and repair it or replace it with a new one :
  - Problem with a hose around fitting … Localized stretch, curvature, leakage or expansion, or less deep insertion into nipple
  - Damage … Large scratch, crack, or an inundated reinforcement layer.
  - Internal damage … Bulging or ※separation of the inner surface, or wear that leads to exposure of the hose reinforcement material.  
( Note ) If the interior damage occurs, foreign objects peeled off the hose or fragments of the reinforcing material may mix with the fluid.
  - Other damage such as hardening, ※swelling, cracks, expansion, etc.
16. Always use the correct size nipple according to the hose. Ensure that nipples are free of surface damage and rust.
17. If it is necessary to attach a hose band, use a spiral-wire-type one.  
Refasten bands when they become loose. Because the torsion of the resin at the band-tightening section may cause fluid to leak out or the hose to be removed.  
Take care not to over-tighten the wires, which cut into the inner hose wall and even cause rupture.
18. Take full care when cutting the hose, because cutting it makes the ends of reinforcing materials on the exterior sharp which may cause injury to you.
19. Do not incinerate the hose. Used hose should be disposed of as industrial waste. Note that incineration of the product may cause damage to incineration facilities or generate toxic gases.
20. The hose should be disposed of in accordance with the requirements of the local region.