

DX-8208A

AMMONIA DETECTION TAPE

APPLICATION TECHNIQUES

- Ensure that the substrate surface is clean, dry and free of any debris, oils, loose particles, etc.
- Ammonia detection tape is a Pressure Sensitive Adhesive (PSA) tape and requires pressure applied by hand or roller.
- Not every situation will allow for DX-8208A to be easily wrapped around the substrate. In challenging areas, apply DX-8208A using the “Butterfly Wrap” (shown right) method. This not only will help encapsulate the surface, but it also helps with preventing any escape route for ammonia gas, thereby allowing you to identify a potential leak.
- To see contrast of the color-changed area versus the non-changed area, apply tape around an area larger than the expected leak location. If the color of the whole tape is changed, it may be difficult to recognize the leak point in case color-change is faint due to very small leak. It is better to apply the tape wider.
- For uneven surfaces or if the width of the area to be monitored is larger than tape’s width, use method 1 or 2 shown below.
- In between usage, to prevent tape from unraveling, secure the end to the core by using a clip as shown below.



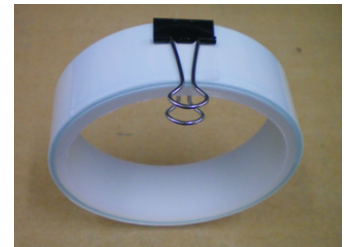
‘Butterfly Wrap’



Method 1: First apply to larger diameter then crimp down remaining adhesive with hand



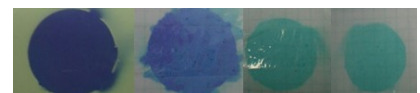
Method 2: Use slight (1/4”) overlap if wider application is necessary



Using a clip to prevent tape unraveling in between usage

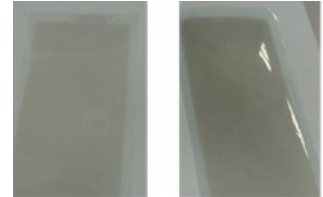
PRECAUTION REMINDER

- This product is intended for use as a localized ammonia gas indicator and should be used as part of a comprehensive gas detection system. Note: It is not able to prevent gas leaks.
- Color change speed depends on NH₃% concentration, flow rate, and temperature. Higher concentration, and flow rate cause a faster color-change. 25ppm ammonia balance in air does not cause a change in color. Temperatures ≥100 °C (212°F) may not provide a full color-change.
- Temperatures lower than -20 °C (-4°F) have not been tested for color-change.
- Once the sample has changed color from white to blue/green, if the ammonia leak is stopped, the color gradually fades. At temperatures ≥100 °C (212°F) the color may fade in less than 24 hrs.



Gradual color fading

- Although this tape has been tested for its NH₃ detection ability under 60°C (140°F), 40°C (104°F) x 95%RH and -5°C (23F) for 3 months or more, the product is only warranted to conform to specifications defined by Nitto.
- When a color-change is observed, it is highly recommended to recheck for NH₃ leak with an NH₃ detector, etc. Tape may lower leak flow or change direction of the leak flow. When reconfirming/checking, please remove the tape and then check for leak.
- In dry conditions, the tape is white. In humid conditions, the tape may turn light blue. Some darkening of the tape may occur when exposed to UV rays.
- When foreign particles such as dust, sand, rust, etc. adhere to the tape's surface, they may cause the color-change to be slower.
- In case tape is dipped in water, when exposed to ammonia it may provide a lighter color-change.
- Once DX-8208A is applied on a surface, do not remove and re-apply it as it may introduce foreign particles onto the adhesive, influencing adhesion and ammonia detection performance.
- In case tape is soaked in 30% aqueous ammonia, it may become fragile.
- To remove fragile tape, apply a secondary off-the-shelf adhesive tape on top and peel off. For removing residues apply organic solvent such as alcohols.
- In case tape is applied on non-stainless steel pipes, colored water may be generated from the steel when it rains. Tape may be dyed with this colored water and it would be difficult to recognize a color-change by an ammonia gas leak.
- The color of the DX-8208A can change to dark gray if exposed to H₂S. Not all gases and gas mixtures have been tested. Do not try to detect other gases, like silane. Such gases have not been tested and may react with the tape aggressively.
- Provide ½"-1" of overwrap to secure the tape. Minimize overwrapping the tape for easier identification of color-change. If overwrapped, squeeze out the air between layers to improve detection capabilities and to help see the color-change more clearly.
- Please note that high speed rewinding may cause a static discharge to occur.



Before UV After UV

ENVIRONMENTAL GUIDELINE

- For optimal adhesion to the substrate, it is suggested to apply DX-8208A at ambient temperatures, 50% relative humidity, allowing at least 24 hours to obtain optimal adhesion strength.
- Once applied, DX-8208A can be exposed and function within temperatures ranging from -20°C to 80°C (-4°F to 176°F). The recommended application temperature range is based on current available lab data.

GENERAL STORAGE CONDITIONS

- Best stored between 50°F- 80°F / 10°C - 27°C, 25-50% relative humidity; out of direct sunlight.

WARNINGS

This product is intended for use as a localized ammonia gas indicator and should be used as part of a comprehensive gas detection system. DX-8208A will not prevent NH₃ leaks. Customer should not rely solely on this product to monitor the safety of a facility where flammable or hazardous gases are present. Please do not use this tape for detecting other gases. Not all gases and gas mixtures have been tested.

Please visit www.NittoDetectionTape.com or call 1-800-755-8273 for a free copy of the warranty terms. Notices in other languages also available on website.