LEAK POINT SENSOR

- ✓ Precise Leak Point Detection

KOREA OCCUPATIONAL SAFETY & HEALTH AGENCY Ministry of the Interior and Safety Certified Disaster Safety Product • National Official Quality Certification • Product Closely Related to Public Safety

Substance Leak Detection

Ammonia, caustic soda, etc.

Detected Substances:

- Alkaline: Liquid/Gas Yellow > Green

• Product for Di Water Leak Detection

Water: Liquid White Blue

Detected Substance: Di water, etc.

LPSF-GBS [Alkaline Substances]

• The Only Certified Color-changing Sensor Product in Korea

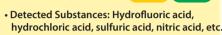
LPSF-NORMAL [Acidic/Alkaline Substances]



Products for Acidic/Alkaline **Substance Detection**







LPSF-ODS [Organic Compounds]



Product for Organic

- Substance Leak Detection Organic: Only Liquid Yellow > Red
- **Detected Substances:** Benzene, toluence, MEK, etc.

CHEMICAL-SHIELD [General Use]



- Excellent Chemical Resistance
- Shatter Resistance
- Operating Temperature: 80 °C

• Excellent Chemical Resistance

LPSF-DDS [DI WATER]

leak



- Shatter Resistance

CHEMICAL-SHIELD [High Temperature Use]

• Operating Temperature: 250 ℃ Simultaneous Acidic/Alkaline

Product for Acidic/Alkaline

Substance Leak Detection

chemical storage tanks, etc.

Acidic: Liquid/GAS Yellow > Red

- Alkaline: Only Liquid Yellow > Green

Can be used in various places such as floors,

Detected Substances: Hydrofluoric acid, hydrochloric acid, sulfuric acid, nitric acid, etc.

• Dries quickly after painting (30 minutes)

- **Substance Leak Detection** - Acidic: Yellow > Red
- Alkaline: Yellow > Green

LPSS-Spray [Acidic/Alkaline Substances] **LPSI-INK** [Acidic/Alkaline Substances]



- Product for Acidic/Alkaline **Substance Leak Detection**
- Acidic: Liquid/GAS
- Alkaline: Only Liquid
- Can be used in various places such as pipes,
- chemical storage tanks, etc. • Detected Substances: Hydrofluoric acid. hydrochloric acid, sulfuric acid, nitric acid, etc.

Smart Paper [Refrigerant Oil] **Coating Paint for Leak Detection** [DI WATER]



• Product for Air Conditioner **Refrigerant Oil Leak Detection**



Detected Substances: Refrigerant, oil, organic substances



 Coating Paint for DI Water **Leak Detection**



Applicable to various places

Color-coded Safety Platform

Solution



\$ Application Cases









The Power of Color

Colors, which influence more than 60% of our vision, are expanding their role as a method of communication and becoming internationally standardized. Colors have the power to make hidden dangers visible and stimulate individual safety awareness. GIF KOREA CO., LTD. is setting the standard by applying "safety colors" in industrial sites and daily life, introducing a new paradigm of "color-coded safety" with standardized guidelines.

Applying "Color" to Hazardous Chemical Leak Points



GIF Korea, a specialized manufacturer of leak detection sensors, is introducing he first color regulations in the hazardous chemical field. We aim to implement color-coded safety in industrial sites, minimizing blind spots in leak detection and ensuring a safer environment.

Safety, Protected by Color





Colors make safety information easier to remember and help in adhering to safety regulations



Safety Information Delivery

Colors clearly convey various safety



Visual Warning

Colors quickly inform of potential hazards, draw attention, and prevent



Safety Culture

Safety systems that utilize colors create a safety culture in theworkplace

Site, Protected by Color





Clear Visibility

Changes in color make it easy for anyone to identify leak points.

High Accuracy

It is unaffected by the surrounding environmen ensuring no malfunctions.

Accurate Leak Detectio
Accurately pinpointing leak points helps

reduce unnecessary costs.



No Power Required

It works even during natural disasters such as power outages and earthquakes, and can detect leaks.

Color	Color Standard	Use	Description	Required Actions
	10Y 8.5/12	Normal (Safety)	Chemical substance is in safe use	No issues
	10R 4/4	LEAK (Danger)	Chemical substance (S/D) leaks and requires action	Check the extent of the leak at the specified point, then perform inspection and safety measures.
	10G 4/10	LEAK (Danger)	Chemical substance (NH3) leaks and requires action	

GIF KOREA VISIBLE SENSOR COLOR STANDARD

Color-Coded Safety Rules with GIF Korea



Core Color-changing Material Development	
 Largest domestic sales of hazardous chemical detection tape 	
Material detection capabilities based on chemical design technology	

- Enhanced Gas Detection Features • Enhanced gas adsorption using
- Induction of color changing at gas leaks in the low ppm range
- Internalization of Product **Structuring Methods** - Change of product structure suitable for
- Providing solutions that meet customer needs



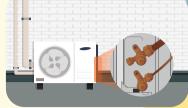
Color-Coded Home Appliance Safety Rules

• Personal protective equipment for handling hazardous chemicals

Application Cases

- Air conditioner refrigerant leak detection sensor
- Dishwasher leak detection coating



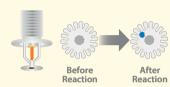


Color-Coded Fire Safety Rules

• Leak detection in fire safety equipment

Application Cases

Sprinkler deflector leak detection



Color-Coded Chemical Tank Safety Rules

Leak detection in hazardous chemical tanks

⋈ Application Cases

- Color-changing paint on the bottom of a hazardouschemical tank
- Color-changing paint on the bottom of a hazardouschemical tank



Color-Coded Chemical Vehicle Safety Rules

• Leak detection in hazardous chemical transport vehicle piping

- Color-changing spray for hazardous chemical transport vehicle piping
- Color-changing spray for chemical transfer pipe flanges and joints



Turning Dangerous Places into Safe Places

Color-Coded Safety Platform



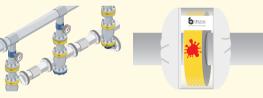
Color-Coded Personal Safety Rules

- Personal protective equipment for handling hazardous chemicals
- **⊘** Application Cases
- Personal safety items: chemical suits, aprons, gloves, shoes, etc.



Color-Coded Plumbing Safety Rules

- Hazardous chemical leak detection
- **Application Cases**
- Hazardous chemical transport pipes, flanges, joints, etc.



Color-Coded Chemical Storage Safety Rules

- Leak detection in hazardous chemical storage containers
- **Application Cases**
- Hydrofluoric acid storage contained leak detection
- IBC tank leak detection







Color-Coded Ship Safety Rules

- Leak detection of hazardous chemicals on ships
- **Application Cases**
- Hazardous chemical leak detection inside ships(NH3)
- Hazardous chemical transport ship leak detection

