

SUPPLY CHAIN OF AMMONIA

Reliable Honeywell gas detection solutions for every stage of the ammonia supply chain*

AMMONIA PRODUCTION

Ammonia production, primarily via the Haber-Bosch method, synthesizes NH_3 from nitrogen and hydrogen. It poses hazards, including hydrogen's flammability, nitrogen's asphyxiation risk, and ammonia's toxicity, which can cause severe respiratory issues and chemical burns if not contained.¹

AMMONIA TERMINALS

Terminals are critical infrastructures in the global supply chain of Ammonia. These terminals serve as key points for the safe storage, handling, and transportation of NH_3 , ensuring a steady supply to various industries.

Storage

Ammonia terminals feature specialized storage tanks that safely hold ammonia

at low temperatures and high pressures, using corrosion-resistant materials to ensure product integrity.

Loading and unloading

Terminals use pipelines, pumps, and metering systems to safely and efficiently transfer ammonia between storage, transport vessels, and distribution networks.

Transportation

Ammonia terminals are strategically located near ports, railways, and highways, serving as key hubs for distributing ammonia to industrial, agricultural, and energy destinations.

GAS PROCESSING AND REFINING

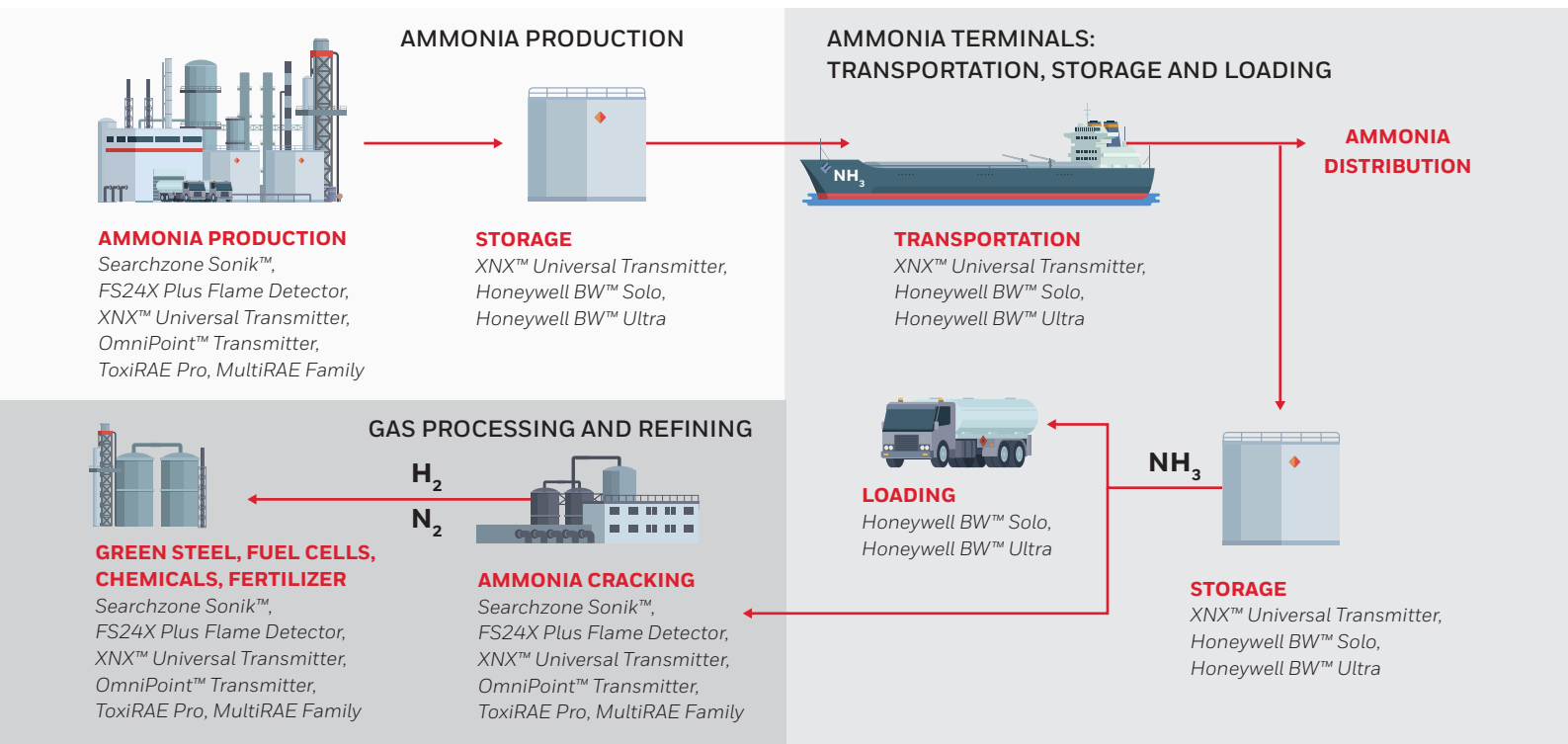
Processing and refining are the methods and procedures used to purify raw materials and

convert them into valuable, usable products. The production facilities must have gas and flame detection to manage these risks.

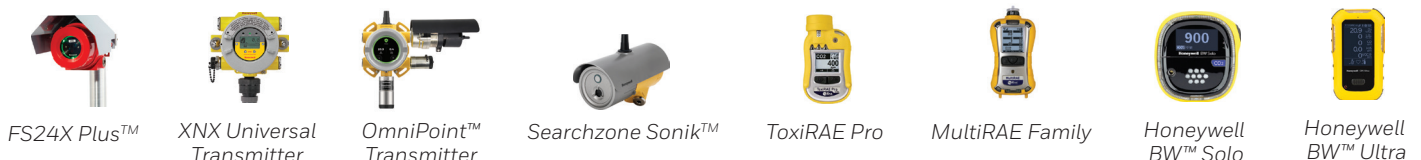
SAFETY

Overall safety is paramount in ammonia terminals and also in the product due to the hazardous nature of ammonia. Gas and flame detection systems are in place to protect personnel, equipment, and the environment.²

1. https://en.wikipedia.org/wiki/Haber_process
2. <https://ammoniaenergy.org/presentations/ammonia-terminal-in-port-areas-safety-and-image-issues-in-storage-throughput-and-transport/>



*Needs may vary from project to project. Please discuss the specific requirements with the user before offering the solution.



PORTABLE GAS DETECTION

Honeywell detectors help to quickly identify ammonia leaks, enabling prompt action to prevent exposure, equipment damage, and potential hazards. Their rugged design, long battery life, and user-friendly interface increase reliability of performance in demanding conditions, making them essential to help maintaining safety and regulatory compliance in ammonia-related operations.



ToxiRAE Pro

- A wireless, personal single-gas monitor to monitor a full range of common toxic industrial chemicals, volatile organic compounds, combustible gases, carbon dioxide, and Oxygen



MultiRAE Family

- An advanced portable chemical detector with the flexibility of up to six gas sensors and the convenience of wireless portability. It offers the flexibility to swap out 25 different sensors



Honeywell BW™ Solo

- An easy-to-service single-gas detector with BLE connectivity that provides real-time visibility into the status and safety of hazardous-area workers



Honeywell BW™ Ultra

- A five-gas detector designed specifically for sampling and monitoring confined spaces, before and after entry. It offers advanced sensor technology, great visibility on gas readings, comfort and BLE connectivity

FIXED GAS DETECTION

Honeywell fixed detectors deliver real-time data, triggering alarms and automated responses to help mitigating hazards before they escalate. Integrated with building management and safety systems, they enhance operational efficiency while protecting personnel and assets. With robust design and reliable performance, Honeywell fixed gas detection solutions are a critical component in ammonia safety management.



FS24X Plus Flame Detector

- Advanced triple IR Flame detector for Hydrocarbon and Hydrogen fires in one device, even in harsh environmental conditions



XNX™ Universal Transmitter

- Universal transmitter with single sensor for toxic, oxygen or combustible gas detection. Supports a wide range of sensors on a common platform and offers a modular choice of inputs and outputs



OmniPoint™ Transmitter

- A comprehensive gas detection solution designed to operate in hazardous locations and supports up to three sensors in the detection of toxic gases, oxygen and flammable gas hazards



Searchzone Sonik™

- A robust and reliable gas leak detector that efficiently detects pressured gas leaks within its range. The solid-state sensor works in harsh environmental conditions with no need to calibrate

Honeywell Process Measurement and Control
2101 CityWest Blvd
Houston, TX 77042
www.honeywell.com

BW Solo, BW Ultra, XNX, OmniPoint, and Searchzone Sonik are trademarks of Honeywell International Inc. in the United States and other countries.

PMC_Ammonia Supply Chain_Infographic_A4_0525
©2025 Honeywell International Inc.

**THE
FUTURE
IS
WHAT
WE
MAKE IT**

Honeywell