



ASTON

PRODUCT DATASHEET

Hydrogel

Lithium-ion Battery Fire Suppression

MINING EDITION

Stop Thermal Runaway On Your Minesite.

NTA 8133-certified gel engineered to rapidly cool and suppress lithium-ion battery fires on mining equipment — from battery-electric LHDs and haul trucks to underground charging bays and battery-storage rooms.



PFAS-FREE

NON-TOXIC

NTA 8133 CERTIFIED

Standard for lithium-ion battery fire extinguishing agents | Certification body: KIWA

■ Built for Mining's Toughest Fire Risk

Battery-electric vehicles, autonomous haul trucks, and li-ion charging infrastructure are moving underground and into pit operations faster than conventional fire suppression can keep up.

Hydrogel is formulated specifically for the thermal runaway hazard of large-format lithium-ion packs — cooling cell temperature rapidly and helping contain propagation to adjacent cells and modules.

■ Mining Applications

- Battery-electric LHDs, haul trucks & light vehicles
- Underground battery charging & swap bays
- Battery-storage and ESS rooms (surface & underground)
- Li-ion powered conveyor and material-handling systems
- Handheld li-ion battery power tools
- Portable equipment, e-scoops & personnel carriers
- Fixed suppression integration for confined-space vehicle bays

■ How It Works

Rapid thermal quench — the gel absorbs heat quickly on contact, pulling cell temperature down out of the thermal-runaway range.

PFAS-free & non-toxic — formulated without PFAS, safer for personnel, site runoff and environmentally sensitive mining locations.

Non-conductive formulation — suited to electrical and battery environments where conductive agents pose additional risk.

Suppresses re-ignition — helps contain propagation from a failing cell to neighboring cells and modules.

Confined-space suitable — designed with underground and enclosed vehicle-bay environments in mind.

■ Product Snapshot

Product:	Hydrogel
Hazard Class:	Lithium-ion battery / thermal runaway fires
Formulation:	PFAS-free, non-toxic
Certification:	NTA 8133 (KIWA-certified)
AU/NZ Dist.:	Aston Safety Technologies
Deployment:	Portable, fixed & retrofit suppression systems
Target Sites:	Underground & surface mining operations

Bring Hydrogel to your site

Ask about site assessment, deployment format (portable / fixed), and regional distributor support.

Aston Safety Technologies

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