

aska[®]

FAST-ACT

Single Window Solution to Neutralise Known & Unknown Toxic Chemicals, Vapours & Gases and Decontaminate the Equipments

For H₂S
Neutralisation
(Marine)

FASTACT USPs

- ▶ Real time, on-site neutralisation of chemical threats
- ▶ Effective against vapours, fumes and liquids
- ▶ Safe, non toxic, non corrosive
- ▶ Ready to use formulation - no mixing, no water required
- ▶ Wide spectrum toxicity management
- ▶ No residual hazard - easy disposal
- ▶ Mitt has been designed to decontaminate equipments, clothes, weapons, helmets, etc.

www.askagroup.com

aska[®]
FASTACT[®]

First Applied Sorbent Treatment - Against Chemical Threat



GS&D
<https://www.gem.gov.in>

Successfully trial
evaluated for H₂S
by IOCL & ONGC


Australian Government
Department of Health
Therapeutic Goods Administration
TGA (Australian Register of Therapeutic
Goods Certificate) for Skin Safety



For H₂S Neutralisation

Trial report & video available

TECHNOLOGY

FAST-ACT is a combination of common metal oxides (MgO + TiO₂) with a unique morphology. It has nanomaterial properties with a final particle size of nearly 5µm. The production process creates an altered, non-toxic molecular structure with large increase in porosity and surface area.

HOW DOES IT WORKS ?

Nanomaterials by nature want to agglomerate and because the molecular structure of FAST-ACT is incomplete, it binds to any reactive substance using "ionic bonding". It uses the targeted chemical's ions to try and complete its own structure, as a result many hazardous chemicals are neutralised through a process now known as "destructive adsorption".

The large surface area with numerous corners and edges containing many unsaturated ions make it effective on liquids and vapours of hazardous compounds.

FAST-ACT literally binds and destroys the contacted chemical with a resultant non-hazardous, neutralised by-product.

FAST-ACT neutralises H₂S by forming by-product MgS

APPLICATION AREAS

- The chemical warfare agents if used in govt buildings or metros or any other places
- To neutralise toxic fumes of fire
- **To neutralise H₂S threat on board naval ships & refineries etc.**
- Chlorine and Ammonia leak threats are neutralised
- All known and unknown toxic vapour and chemical threats

TESTED & CERTIFIED BY

- TNO Laboratories, Netherlands
- Battelle Memorial Institute Columbus, OH, USA
- The Edgewood Chemical Biological Center (ECBC), Aberdeen Proving Ground, MD, USA
- Toxicology Unit, School of Medical Sciences, RMIT, Australia
- NATO approved personal decontamination kit and personal Decontamination Apparatus
- Lloyds certified for H₂S neutralisation

Capacity	1kg / 2kg / 4kg Decontamination Powder (Nanomaterials) in pressurized vessel
Operating Pressure of the container	180 - 220 PSI (up to 15 bar)
Ruggedness	Shall withstand normal vibrations and shock during handling and transportation without accidental leaks/releases
Discharge time	Not more than 2 min
Pressure gauge	Yes Provided (easy to read), 2Nos.
Gas used for pressurization	Nitrogen
Discharge Hose & Nozzle	Nozzle that can spray the powder evenly and easily and shall not get corroded/clogged on exposure to chlorinating compounds.
Container / Vessel	HDPE white color vessel Test pressure: 22 Bar and Burst pressure 55 Bar (Minimum) as per TC of Manufacturer or as per guidelines

Color and form of material/particles	White dry powder
Powder major ingredient	Dry Chemical powder formulation of non-toxic Nano crystalline metal oxides (primarily TiO ₂ and MgO)
Gross Weight (including powder)	1kg Nanomaterials in 2kg Pressurized Cylinder - 2.1± 10% 2kg Nanomaterials in 6kg Pressurized Cylinder - 4.4± 10% 4kg Nanomaterials in 9kg Pressurized Cylinder - 6.7± 10%
Dimension (Height x Diameter) mm	2kg - 410 x 125, 6kg - 570 x 178, 9kg - 640 x 210
Test Reports	TNO, Netherlands/Beattle/SBCCOM or Lloyds for H ₂ S neutralisation
Life of Decontamination Powder	5 Years from the date of filling of vessel
Hose materials	Rubber with aluminium crimp ends

Note : Product with NATO stock number

NEUTRALISATION		ADSORPTION	NON EFFECTIVE
CORROSIVE MATERIALS	VAPOUR HAZARDS	LIQUID SOLVENT SPILL	
ACIDS Inorganic and Organic Hydrochloric Acid Hydrofluoric Acid Nitric Acid Phosphoric Acid Sulphuric Acid Acetic Acid Methanesulfonic Acid Ethanesulfonic Acid Benzenesulfonic Acid Toluenesulfonic Acid Hydrogen sulfide (H ₂ S)	HALOGEN / HALIDES Acetyl Chloride Chloroacetyl Chloride Chlorine Chloroform Hydrogen Bromide Cyanogen Chloride Methylene Chloride Carbon Tetrachloride TCE, PCE PHOSPHORUS Pesticides DimethylmethylPhosphnate Paraoxon Parathion SULPHUR 2-Chloroethyl Ethyl Sulfide Methyl Mercaptan PHENOLS Nitrophenols Chlorophenols CHEMICAL WARFARE AGENTS Sulphur Mustard (HD) Tabun (GA) Sarin (GA) Soman (GD) VX	ALCOHOLS / PHENOLS Ethanol Methanol Allyl Alcohol Nitrophenols Chlorophenols CAUSTICS Metal Hydroxides (aq) PETROCHEMICALS Diesel Gasoline Olis OTHERS Acrylonitrile Benzene Hydrazine Toluene Acrolein Methylhydrazine* Methylsocynate*	BIOLOGICALS Bacteria Viruses Spores NUCLEAR RADIOLOGICAL HEAVY METALS SOLID WASTE
BIS (2-CHLOROETHYL) SULFIDE			
PINACOLYL METHYLPHOSPHONOFUORIDATE			
O-ETHYL S (2-DISSOPROPYLAMINOETHYL) - MET HYLPHOSPHONOTHIOATE			
CARBONYL COMPOUNDS Aldehydes Ketones Carboxylic Acids			
NITROGEN COMPOUNDS Acetonitrile Sodium Cyanide (AQ) 4-Vinylpyridine			
	ACIDIC & CAUSTIC GASES Hydrogen Chloride Hydrogen Fluoride Hydrogen Bromide Nox/N ₂ O ₄ Sulphur Dioxide Hydrogen Sulphide Diborane Hydrogen Selenic Phosphine Ammonia Anhydrous Ammonia Carbon/Sulfide Hydrogen Cyanide HALOGENS Chloride Bromine Iodine VOLATILE ORGANICS Methyl Mercaption Ethylene Oxide Formaldehyde Phosgene Arsine CHLORINATED ORGANICS Acetyl Chloride Chloroacetyl Chloride Chloroform Methylene Chloride		

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