

# aska®

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

For H<sub>2</sub>S & CWA  
Neutralisation

### 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



<https://www.gem.gov.in>



Successfully trial  
evaluated for H<sub>2</sub>S  
by IOCL & ONGC

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



For H<sub>2</sub>S Neutralisation

Trial report & video available

## TECHNOLOGY

FAST-ACT is a combination of common metal oxides (MgO + TiO<sub>2</sub>) 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 residue is MgS after reaction with H<sub>2</sub>S

## APPLICATION AREAS

- To neutralise H<sub>2</sub>S threat on board naval ships
- To neutralise H<sub>2</sub>S threat in refineries (SRUs, FCC, CRU, DHDS, DHDT, HCU)
- To neutralise H<sub>2</sub>S threat in sludge handling areas, tail gas unit, amine regeneration units and areas where ever H<sub>2</sub>S presence is expected in refineries
- The chemical warfare agents if used in govt buildings or metros or any other places
- Chlorine and Ammonia leak threats are neutralised
- All known and unknown toxic vapour, gases and chemical threats except in solid state

## 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 H<sub>2</sub>S neutralisation

<b>Capacity</b>	1kg / 2kg / 4kg Decontamination Powder (Nanomaterials) in pressurized vessel	<b>Color and form of material/particles</b>	White dry powder
<b>Operating Pressure of the container</b>	180 - 220 PSI ( up to 15 bar)	<b>Powder major ingredient</b>	Dry Chemical powder formulation of non-toxic Nano crystalline metal oxides (primarily TiO <sub>2</sub> and MgO)
<b>Discharge time</b>	Not more than 2 min	<b>Gross Weight (including powder)</b>	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%
<b>Pressure gauge</b>	Yes Provided (easy to read). 2Nos.	<b>Dimension (Height x Diameter) mm</b>	2kg-410 x 125, 6kg-570 x 178, 9kg-640 x 210 of pressurised cylinder
<b>Gas used for pressurization</b>	Nitrogen	<b>Test Reports</b>	TNO, Netherlands/Beattle/SBCCOM or Lloyds for H <sub>2</sub> S neutralisation
<b>Discharge Hose &amp; Nozzle</b>	Nozzle that can spray the powder evenly and easily and shall not get corroded/clogged on exposure to chlorinating compounds.	<b>Life of Decontamination Powder</b>	5 Years from the date of filling of vessel
<b>Container / Vessel</b>	HDPE white color vessel Test pressure: 22 Bar and Burst pressure 55 Bar (Minimum) as per TC of Manufacturer or as per guidelines	<b>Hose material as per EN standard</b>	EPDM (applicable for 6kg & 9kg pressurised cylinders)

NEUTRALISATION		ADSORPTION		NON EFFECTIVE
<b>CORROSIVE MATERIALS</b>	<b>VAPOUR HAZARDS</b>	<b>LIQUID SOLVENT SPILL</b>		
<b>ACIDS</b> 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 <sub>2</sub> S)	<b>HALOGEN / HALIDES</b> Acetyl Chloride Chloroacetyl Chloride Chlorine Chloroform Hydrogen Bromide Hydrogen Bromide Cyanogen Chloride Methylene Chloride Carbon Tetrachloride TCE, PCE  <b>PHOSPHORUS</b> Pesticides DimethylmethylPhosphnate Paraoxon Parathion  <b>SULPHUR</b> 2-Chloroethyl Ethyl Sulfide Methyl Mercaptan  <b>PHENOLS</b> Nitrophenols Chlorophenols  <b>CHEMICAL WARFARE AGENTS</b> Sulphur Mustard (HD) Tabun (GA) Sarin (GA) Soman (GD) VX	<b>ALCOHOLS / PHENOLS</b> Ethanol Methanol Allyl Alcohol Nitrophenols Chlorophenols  <b>CAUSTICS</b> Metal Hydroxides (aq)  <b>PETROCHEMICALS</b> Diesel Gasoline Oils  <b>OTHERS</b> Acrylonitrile Benzene Hydrazine Toluene Acrolein Methylhydrazine* Methylsocyante*	<b>BIOLOGICALS</b> Bacteria Viruses Spores  <b>NUCLEAR</b>  <b>RADIOLOGICAL</b>  <b>HEAVY METALS</b>  <b>SOLID WASTE</b>	
<b>BIS (2-CHLOROETHYL) SULFIDE</b>	<b>ACIDIC &amp; CAUSTIC GASES</b> Hydrogen Chloride Hydrogen Fluoride Hydrogen Bromide Nox/N2O4 Sulphur Dioxide <b>Hydrogen Sulphide</b> Diborane Hydrogen Selenice Phosphine Ammonia Anhydrous Ammonia Carbon/Sulfide Hydrogen Cyanide			
<b>PINACOLYL METHYLPHOSPHONOFUORIDATE</b>	<b>HALOGENS</b> Chloride Bromine Iodine  <b>VOLATILE ORGANICS</b> Methyl Mercaption Ethylene Oxide Formaldehyde Phosgene Arsine			
<b>O-ETHYL S (2-DISSOPROPYLAMINOETHYL) - MET HYLPHOSPHONOTHIOATE</b>	<b>CHLORINATED ORGANICS</b> Acetyl Chloride Chloroacetyl Chloride Chloroform Methylene Chloride			
<b>CARBONYL COMPOUNDS</b> Aldehydes Ketones Carboxylic Acids				
<b>NITROGEN COMPOUNDS</b> Acetonitrile Sodium Cyanide (AQ) 4-Vinylpyridine				

**aska**<sup>®</sup>  
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CLIENTS



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## Customer Support

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