aska®

FAST-ACT

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

For H2S, Industrial Chemical & CWA Neutraliser

Successfully trial evaluated for H2S by IOCL & ONGC

Recommended by OISD

aska® FASTACT®

First Applied Sorbent Treatment - Against Chemical Threat

GeM Government eMarketplace

https://www.gem.gov.in

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.
- Can be use in open areas for self safety in case sudden release of chemicals (escape path)

Australian Government
Department of Health
Therapeutic Goods Administration

TGA (Australian Register of Therapeutic Goods Certificate)for Skin Safety

CERTIFIED LR PRODUCT VERIFICATION SCHEME

For H2S Neutralisation

www.askagroup.com

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 residue is MgS after reaction with H2S

APPLICATION AREAS

- **To neutralise H2S threat on board naval ships**
- **To neutralise H2S threat in refineries (SRUs, FCC, CRU, DHDS, DHDT, HCU)**
- To neutralise H2S threat in sludge handling areas, tail gas unit, amine regeneration units and areas where ever H2S 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), Aberdeeb 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)
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 H2S neutralisation
Life of Decontamination Powder	5 Years from the date of filling of vessel
Hose material as per EN standard (applicable for 6kg & 9kg pressurised cylinders)	EPDM

NEUTRALISATION

CORROSIVE MATERIALS

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 (H2S)

BIS (2-CHLOROETHYL) SULFIDE

PINACOLYL METHYLPHOSPHONOFLUORIDATE

O-ETHYL S (2-DISSOPROPYLAMINOETHYL) - MET HYLPHOSPHONOTHIOATE

CARBONYL COMPOUNDS
- Aldehydes
- Ketones
- Carboxylic Acids

NITROGEN COMPOUNDS
- Acetonitrile
- Sodium Cyanide (AQ)
- 4-Vinylpyridine

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 & H2S

VAPOUR HAZARDS

ACIDIC & CAUSTIC GASES
- Hydrogen Chloride
- Hydrogen Fluoride
- Hydrogen Bromide
- Nox/N204
- Sulphur Dioxide
- **Hydrogen Sulphide**
- Diborane
- Hydrogen Selenice
- 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

ADSORPTION

LIQUID SOLVENT SPILL

ALCOHOLS / PHENOLS
- Ethanol
- Methanol
- Allyl Alcohol
- Nitrophenols
- Chlorophenols

CAUSTICS
- Metal Hydroxides (aq)

PETROCHEMICALS
- Diesel
- Gasoline
- Olis

OTHERS
- Acrylonitrile
- Benzene
- Hydrazine
- Toluene
- Acroleln
- Methylhydrazlne*
- Methyllsocynate*

NON EFFECTIVE

BIOLOGICALS
- Bacteria
- Viruses
- Spores

NUCLEAR

RADIOLOGICAL

HEAVY METALS

SOLID WASTE

CLIENTS

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Customer Support

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