



MATERIAL SAFETY DATASHEET

SECTION I : MATERIAL IDENTIFICATION

PRODUCT NAME TerraOxi <i>*(As used on Label and List)</i>	MANUFACTURER'S NAME & ADDRESS: Japan Air Filter Malaysia Sdn Bhd Lot 4, Jalan Halba 16/16, Section 16, Shah Alam Industrial Estate, 40200 Shah Alam, Selangor, Malaysia.		
CHEMICAL IDENTITY Activated Alumina with Potassium Permanganate	Phone No : +603 5510 1810 Fax : +603 5510 3390 Website : www.japanairfilter.com		
CHEMICAL FORMULA Al ₂ O ₃ + H ₂ O + KMnO ₄	SUPPLIER'S NAME & ADDRESS: Japan Air Filter Malaysia Sdn Bhd Lot 4, Jalan Halba 16/16, Section 16, Shah Alam Industrial Estate, 40200 Shah Alam, Selangor, Malaysia.		
CHEMICAL FAMILY Inorganic Oxidizer	Emergency Phone No : +603 5510 1810		
MATERIAL USE Gaseous air purification	MOLECULAR WEIGHT : N/A		

SECTION II : HAZARDOUS INGREDIENTS OF MATERIAL

COMPONENT IDENTITY, COMMON NAME(S)	% By Weight	CAS number	UN number
ALUMINIUM OXIDE (Al ₂ O ₃)	>90	1344-28-1	N/A
POTASSIUM PERMANGANATE (KMnO ₄)	<8	7722-64-7	1490

SECTION III : PHYSICAL CHARACTERISTICS OF MATERIAL

Physical State <i>Solid</i>	Odor and Appearance <i>Purple pellets</i>	Odor Threshold <i>N/A ppm</i>	Apparent bulk density (dry) <i>800 [g/l] ±10%</i>
Pellet diameter <i>3.0 - 5.0 mm</i>	Hardness (as packed) <i>>50 %</i>	Moisture content <i>15 - 25 wt%</i>	Abrasion <i>< 4.5 %</i>
Crush Strength <i>50N ±10%</i>	Impregnants <i>8 % KMnO₄</i>	Hydrogen Sulphide (H ₂ S) Gas Capacity <i>0.10 - 0.12 g/cc</i>	
Removal Capacities (min) <i>Hydrogen Sulphide: 14 wt%; Sulphur Dioxide: 7 wt%; Nitrogen Dioxide: 21 wt%; Nitrogen Oxide: 5 wt%; Formaldehyde: 2.5 wt%</i>			

SECTION IV : FIRE AND EXPLOSION HAZARD OF MATERIAL

Flammability <i>No</i>	If yes, under which conditions: <i>N/A</i>
Suitable Extinguishing Agents <i>All agents commonly used (Water, CO₂, Foam, Dry chemical powders)</i>	
Unsuitable Extinguishing Agents <i>None.</i>	Explosion Hazard <i>None</i>
Hazardous Combustion Products <i>CO may be generated in case of combustion.</i>	

SECTION V : REACTIVITY DATA OF MATERIAL

Chemical Stability <i>Yes</i>	If no, under which conditions: <i>N/A</i>
Incompatible to other products <i>Yes</i>	If yes, under which conditions: <i>Strong reducing agents and easily oxidizing agents.</i>
Hazardous Decomposition Products <i>N/A</i>	

SECTION VI : TOXICOLOGICAL CHARACTERISTICS OF MATERIAL

Route of Entry <input checked="" type="checkbox"/> Skin Contact <input type="checkbox"/> Skin Absorption <input checked="" type="checkbox"/> Eye Contact <input checked="" type="checkbox"/> Inhalation Acute <input checked="" type="checkbox"/> Ingestion
Effects of Acute Exposure <i>May cause irritation to the eyes and mucous membranes; causes sneezing.</i>
Effects of Chronic Exposure <i>N/A</i>
<input type="checkbox"/> Carcinogenicity <input type="checkbox"/> Mutagenicity <input type="checkbox"/> Teratogenicity <input type="checkbox"/> Reproductive effects <i>N/A</i>

PRODUCT NAME: TerraOxi			
SECTION VII : ECOLOGICAL CHARACTERISTICS OF MATERIAL			
Ecotoxicity <i>N/A</i>		Bioaccumulation Potential <i>N/A</i>	
Persistence/ Degradability <i>N/A</i>		Mobility in Soil <i>N/A</i>	
Other Adverse Effects <i>N/A. If product gets wet, potassium permanganate may leach out.</i>			
SECTION VIII : PREVENTIVE MEASURES			
Personal Protective Equipment <i>See below</i>			
Gloves (Specify) <i>Rubber</i>	Clothing (Specify) <i>N/A</i>	Respiratory (Specify) <i>Particulate Mask</i>	Footwear (Specify) <i>Rubber</i>
Eye (Specify) <i>Full face shield/ safety glasses or goggles</i>		Other (Specify) <i>N/A</i>	
Engineering Controls (e.g. ventilation, enclosed process; specify) <i>Handle in a well ventilated area.</i>			
Leak and Spill Procedure <i>Avoid direct contact. If dry, scoop/ rake, avoid raising dust. Remove to appropriate storage area prior do disposal.</i>			
Waste Disposal <i>Dispose in accordance to government regulations.</i>			
Handling Procedures and Equipment <i>Do not get in eyes, on skin or clothing. Do not breathe dust.</i>			
Storage Requirements <i>Store in cool, dry, ventilated storage and in closed containers. Keep away from oxidizers, heat, or flames. Store away from ignition sources.</i>			
Transportation and Shipping Information <i>Transport product in compliance with government regulations.</i>			
SECTION IX : FIRST AID MEASURES			
Skin <i>Wash contaminated area with copious amounts of water.</i>			
Eye <i>Flush eyes with the eyelids open for 15 minutes. Consult a physician.</i>			
Inhalation <i>Move to clean air. Consult a physician.</i>			
Ingestion <i>Do not induce vomiting. Drink plenty of water. Seek medical attention.</i>			
General advice <i>Wash hands before eating or smoking. Wash contaminated clothing.</i>			
SECTION X : OTHER INFORMATION			
Data in this sheet refers only to general safety requirements. They are based on our present knowledge. However, the above data shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual agreement.			
The above data sheet will be periodically reviewed and modified by our technical team. For any more information, please consult our manufacturing team at the above given contact details.			