

MSDS (Material Safety Data Sheet) for All Colors Aluminum Oxide

SECTION 1 : PRODUCTION IDENTIFICATION AND USE

PRODUCT NAMES : Aluminum Oxide

SYNONYMS : Brown Fused Alumina, Brown Aluminum Oxide, Mulgrit Brown, Alpha Alumina, WA

FORMULA: Al₂O₃

MANUFACTURER/SUPPLIER'S NAME :

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SECTION 2 : COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS N°	Weight (%)	PEL-OSHA mg/m ³	TLV-ACGIH mg/m ³	Carcinogen Yes/No
Aluminium oxide (Al ₂ O ₃)	1344-28-1	94.5-98	10**	10	No
EINECS No.	215 - 691 - 6				
REACH Reg. No.	01-2119529248-35-0089				

SECTION 3 : HAZARDS IDENTIFICATION

CRITICAL HAZARDS TO MAN AND ENVIRONMENT	
Classification EC 1272/2008(CLP)	Not classified as hazardous goods
EC 67/548/EEC or 1999/45/EC	No Hazards characteristics, No R- or H-Phrases

SECTION 4 : FIRST AID MEASURES

INHALATION	Move to fresh air, Consult a physician if necessary.
EYE CONTACT	Flush with plenty of water. Seek medical advice if irritation persists
SKIN CONTACT	Mechanical (dry) removal. Subsequent rinsing with water.
INGESTION	Rinse out mouth and give water to drink. Seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA	Not inflammable .Use extinguishing measures appropriate to the source of the fire.
EXTINGUISHING MEDIA WHICH MUST NOT BE USED FOR SAFETY REASONS:	Not known
SPECIAL EXPOSURE HAZARDS ARISING FROM THE SUBSTANCE ITSELF, COMBUSTION PRODUCTS, RESULTING GASES	
SPECIAL PROTECTIVE EQUIPMENT	Not applicable

SECTION 6: ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS	Avoid dust formation. In case of exposure to high levels of airborne dust, wear personal protective equipment (see also item 8)
ENVIRONMENTAL PRECAUTIONS	No special measures required
METHODS FOR CLEANING UP	Pick up mechanically and dispose of in accordance to regulations

SECTION 7: HANDLING AND STORAGE

HANDLING: PRECAUTIONS FOR SAFE HANDLING	Avoid dust formation
PRECAUTIONS AGAINST FIRE AND EXPLOSION	No danger of fire and dust explosion
STORAGE: CONDITIONS OF STORAGE ROOMS AND VESSELS	No special precautionary measures
ADVICE OF STORAGE OF INCOMPATIBLE MATERIALS	None

SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION

EXPOSURE LIMIT VALUES	Not applicable
COMPONENTS WITH SPECIFIC CONTROL PARAMETERS AS LIMIT VALUES	Observe the local by laws in terms of fine dust (e.g.: OSHA-PEL value 15 mg/m ³ total dust; 5 mg/m ³ for respirable dust ; TRGS 900 10 mg/m ³ respirable, 3 mg/m ³ alveolar)
EXPOSURE CONTROLS	
OCCUPATIONAL EXPOSURE CONTROLS RESPIRATORY PROTECTION	Avoid inhaling the dust Fine-dust mask with category P2 filter must be used if fine dust limits are exceeded.
HAND PROTECTION	Protective gloves are recommended
EYE PROTECTION	Safety glasses are recommended
GENERAL PROTECTION AND HYGIENE MEASURES	Observe standard industrial hygiene practice
ENVIRONMENTAL EXPOSURE CONTROLS	No special exposure controls required

SECTION 9: PHYSICAL PROPERTIES

APPEARANCE	
FORM	Grains, powder
COLOUR	Brown, Bluish, Grey, Black, White, Pink
ODOUR	Odourless
SAFETY RELEVANT BASIC PARAMETERS	
CHANGE IN PHYSICAL STATE	Melting point approx. 2,000 °C
FLASH POINT	Not applicable
FLAMMABILITY	Not flammable
IGNITION TEMPERATURE	Not applicable
AUTOFLAMMABILITY	Not auto flammable
OXIDIZING PROPERTIES	Not applicable
EXPLOSIVE PROPERTIES	
EXPLOSIVE LIMITS	
VAPOUR PRESSURE	
SPECIFIC GRAVITY	(3,7 - 4,5) g/cm ³
BULK DENSITY	(500- 2500) kg/m ³
SOLUBILITY IN WATER	Practically insoluble
PH VALUE	Not applicable
PARTITION COEFFICIENT N-OCTANOL/WATER	

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS TO AVOID	None
MATERIALS TO AVOID	
HAZARDOUS DECOMPOSITION PRODUCTS	The material is stable, no hazardous reactions known

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOKINETICS	No bio accumulating potential
ACUTE EFFECTS/TOXICITY TESTS	
DERMAL	Not applicable
INHALATION	
SKIN CORROSION	Not corrosive
SKIN IRRITATION	Not irritating
EYE IRRITATION	
SENSITISATION	Not sensitising
REPEATED DOSE TOXICITY	Not applicable. Not a relevant exposure
ORAL	Route
INHALATION	not applicable
CMR EFFECTS	There is no evidence of any CMR effects

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY	No harmful effects on water organisms anticipated The substance is highly insoluble in water.
MOBILITY - DISTRIBUTION TO TERRESTRIAL COMPARTMENTS	Not applicable
PERSISTENCE AND DEGRADABILITY	Not applicable for inorganic substances
RESULTS OF PBT ASSESSMENT	Aluminium oxide is not a PBT substance.
OTHER ADVERSE EFFECTS	None

SECTION 13: DISPOSAL CONSIDERATIONS

APPROPRIATE DISPOSAL	Reuse or recycle when possible. Can be stored with domestic waste. Observe local bye-laws
CONTAMINATED PACKAGING	Packaging has to be emptied entirely. Recycling of used packaging is recommended. Local bye-laws must be observed.

SECTION 14: TRANSPORT INFORMATION

LAND TRANSPORT	
GGVS / ADR - Classification	Not classified as hazardous material
GGVE / RID	
INLAND WATERWAYS	
GGVBisch / ADNR - Classification	Not classified as hazardous material
MARITIME TRANSPORT	
GGVSee / IMDG - Classification	Not classified as hazardous material
AIR TRANSPORT	
ICAO-TI / IATA - Classification	Not classified as hazardous material

SECTION 15: REGULATORY INFORMATION

CLASSIFICATION ACCORDING TO EC GUIDELINES	
Labelling EC No 1272/2008	The product is not classified. No hazard symbol is necessary.
Labelling (67/548/EEC or 1999/45/EC)	None
Hazard symbols	

SECTION 16: OTHER INFORMATION

RELEVANT R-AND H-PHRASES	None
<p>Studies by the Institute for Hygiene and Industrial Medicine of the University of Essen showed that fused aluminium oxide (corundum) is inert and possesses no toxic or carcinogenic properties.</p> <p>This information covers the safety requirements of the product(s) exclusively and is based on current knowledge and experience. It does not represent a guarantee for properties of the described product(s) in terms of the legal warranty regulations.</p> <p>The product specification is contained in a separate product data sheet.</p>	
ISSUER OF MSDS TS EHS	
ANNEX EXPOSURE SCENARIOS	
<p>As a result of the hazard assessment and PBT/vPvB assessment it is found that Substance Aluminium Oxide (CAS# 1344-28-1) does not meet the criteria for classification as hazardous (according to the directives 67/548/EEC and 1272/2008/EC) nor it is considered to be a PBT/vPvB. An exposure assessment and the subsequent step of risk characterisation are not required.</p>	

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NOTICE

The information presented herein is based on data considered to be accurate as of the date of preparation of this Material Safety Data Sheet. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, no responsibility can be assumed by vendor for any damage or injury resulting from abnormal use, from any failure to adhere to recommended practices, or from any hazards inherent in the nature of the product.