

1. Identification of the material and supplier

Names

Product name : Bauxite

Product code : 24

Supplier

Supplier : For Asia:
Rio Tinto Alcan
Bauxite & Alumina Business Unit
123 Albert Street,
Brisbane, 4000,
Australia
Telephone: +61 7 3625 3000 (BH)

For Europe and Specialty Aluminas Worldwide:
Rio Tinto Alcan
Specialty Aluminas
PO Box 43
13541 Gardanne Cedex
France
Telephone: +33 4 42 65 22 83

For North America:
Rio Tinto Alcan
Specialty Aluminas
1955 Boulevard Mellon,
Jonquière, Québec, G7S 4L2,
Canada
Telephone +1 418-699-2111

Emergency telephone number : +61 (0) 2 8014 4558 (Rio Tinto Alcan)
For advice on chemical emergencies, spillages, fires or First Aid.

Australian Poisons Information Centre: 131126 (Australia only)

Material uses : Industrial applications: Polishing agent, artificial corundum abrasives, component in refractory bricks, refractory formulations, fire retardant/smoke suppressant and in manufacture of mineral wools and cement.
Metal industry: Raw material for production of aluminium hydroxide and alumina.

Product type : Solid.

2. Hazards identification

Statement of hazardous/dangerous nature : NON-HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.

Classification : Not regulated.

Risk phrases : Not classified.

GHS Classification : Not classified.

GHS label elements

Signal word : No signal word.

2. Hazards identification

Other hazards which do not result in classification : Not available.

3. Composition/information on ingredients

Chemical name : Bauxite
CAS number : 1318-16-7

Ingredient name	CAS number	% percentage
gibbsite (Al(OH) ₃)	21645-51-2	25 - 80
Boehmite (Al(OH)O)	1318-23-6	0.1 - 25
Hematite (Fe ₂ O ₃)	1317-60-8	8 - 20
kaolinite	1318-74-7	0.5 - 9
Anatase (TiO ₂)	1317-70-0	0.3 - 5
Quartz (SiO ₂)	14808-60-7	0.01 - 5
Goethite (Fe(OH)O)	1310-14-1	0.1 - 4

Additional information

Other ingredients, determined not to be hazardous according to Safe Work Australia criteria, and not dangerous according to the ADG Code, make up the product concentration to 100%.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First-aid measures

First-aid measures

- Inhalation** : Move exposed person to fresh air. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. Get medical attention if symptoms occur.
- Skin contact** : Wash with soap and water. Get medical attention if symptoms occur.
- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.
- Advice to doctor** : No specific treatment. Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
- Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
 No specific fire or explosion hazard.
- Hazardous thermal decomposition products** : None.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

- Personal precautions** : Put on appropriate personal protective equipment (see Section 8).
- Environmental precautions** : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).
- Methods for cleaning up**
- Small spill** : Recycle, if possible. Waste must be disposed of according to applicable regulations.
- Large spill** : Recycle, if possible. Note: see section 1 for emergency contact information and section 13 for waste disposal. Waste must be disposed of according to applicable regulations.

7. Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas.
- Storage** : Store in accordance with local regulations. Store so as to avoid dust generation and dispersal.

8. Exposure controls/personal protection

Occupational exposure limits

Ingredient name	Exposure limits
Quartz (SiO ₂)	Safe Work Australia (Australia, 8/2005). TWA: 0.1 mg/m ³ 8 hour(s).
aluminium oxide	Safe Work Australia (Australia, 8/2005). TWA: 10 mg/m ³ 8 hour(s).
titanium dioxide	Safe Work Australia (Australia, 8/2005). TWA: 10 mg/m ³ 8 hour(s).
titanium dioxide	Rio Tinto 10 mg/m ³ (Inhalable) 5 mg/m ³ (Respirable)
iron oxide (Fe ₂ O ₃)	Rio Tinto 5 mg/m ³ (Respirable.)
Aluminium (metal & insoluble compounds)	Rio Tinto 10 mg/m ³ (Inhalable) 5 mg/m ³ (Respirable)

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

Exposure controls

- Engineering measures** : No special ventilation requirements. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Hands** : Wear suitable gloves.

8. Exposure controls/personal protection

- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: overall
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Personal protective equipment (Pictograms)** :



9. Physical and chemical properties

- Physical state** : Solid. [Granular solid. Powder.]
- Odour** : Odourless.
- Melting point** : >2000°C (>3632°F)
- Granulometry** : Not available.
- Relative density** : 2.45 to 3.25
- pH** : 7

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid** :
None known.
- Materials to avoid** : None known.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Potential acute health effects

- Inhalation** : No known significant effects or critical hazards.
- Ingestion** : No known significant effects or critical hazards.
- Skin contact** : No known significant effects or critical hazards.
- Eye contact** : No known significant effects or critical hazards.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Quartz (SiO ₂)	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>2000 mg/kg	-

- Conclusion/Summary** : Not available.

Potential chronic health effects

Chronic toxicity

- Conclusion/Summary** : Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

11. Toxicological information

Irritation/Corrosion

Conclusion/Summary

Respiratory : No significant irritation expected other than possible mechanical irritation.

Sensitiser

Conclusion/Summary

Skin : No known significant effects or critical hazards.

Carcinogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Mutagenicity

Conclusion/Summary : No known significant effects or critical hazards.

Teratogenicity

Conclusion/Summary : No known significant effects or critical hazards.

Reproductive toxicity

Conclusion/Summary : No known significant effects or critical hazards.

Chronic effects : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Over-exposure signs/symptoms

Inhalation : No specific data.

Ingestion : No specific data.

Skin : No specific data.

Eyes : No specific data.

Target organs : Contains material which may cause damage to the following organs: lungs, upper respiratory tract, eye, lens or cornea.

12. Ecological information

Ecotoxicity : No known significant effects or critical hazards.

Aquatic ecotoxicity

Conclusion/Summary : Not available.

Other ecological information

Persistence/degradability

Conclusion/Summary : Not available.

Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
Bauxite	-	-	-

Other adverse effects : No known significant effects or critical hazards.

13. Disposal considerations

Methods of disposal : Recycle, if possible. The generation of waste should be avoided or minimised wherever possible. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor.

14. Transport information

Regulation	UN number	Proper shipping name	Classes	PG*	Label	Additional information
ADG	Not regulated.	-	-	-		-
ADR	Not regulated.	-	-	-		-
IMDG	Not regulated.	-	-	-		-
IATA	Not regulated.	-	-	-		-

PG* : Packing group

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

15. Regulatory information

Standard for the Uniform Scheduling of Drugs and Poisons

Not regulated.

Australia inventory (AICS) : Not determined.

16. Other information

Date of issue/Date of revision : 2/19/2013.

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☑ Indicates information that has changed from previously issued version.

Disclaimer

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.