

Industrial Minerals Prices September 2011

September 2011

Bold indicates price change from previous month (it may have changed more than once during the month). All prices are in US\$ and quoted per tonne unless indicated. It is not possible to publish prices for all industrial minerals and grades in the space available, these pages comprise a selection of frequently traded minerals. For a wider range and more detail on mineral prices, we refer you to **Price Listing** on **www.indmin.com**.

Alumina

Calcined 98.5-99.5% Al₂O₃ bulk FOB US refinery \$600-700 Calcined, ground 98.5-99.5% Al₂O₃, bulk FOB US refinery \$700-800

Alumina, fused

Brown 95% min. Al₂O₃, FEPA F8-220 Grit, FOB China \$700-800 Brown 95.5% Al₂O₃, refractory lump & sized, FOB China \$600-735 White, 25kg bags, CIF Europe €150-1280

Andalusite

57-58% Al₂O₃, 2,000 tonne bulk, FCA Mine-RSA €230-265 55-59% Al₂O₃, FOB European port €345-400

Antimony Trioxide

Typically 99.5% SbO₃, 5 tonne lots, CIF Antwerp/Rotterdam \$13,300-13,400 Typically 99.5% SbO₃, 20 tonne lots FOB China \$13,100-13,200

Barytes

Drilling grade

Unground lump
OCMA/API bulk,SG 4.20
FOB Chennai \$120-125
FOB Morocco \$91-96
FOB China \$93-96
C&F North Sea (Moroccan) \$108-113
API, CIF Gulf Coast,
Chinese \$123-128
Indian \$120-125

Ground

OCMA bulk, del. Aberdeen £95-105 OCMA bulk, del. Gt Yarmouth £110-120 OCMA/API, big bags (1.5t), FOB S.Turkey \$130-135 SG 4.22, bagged, FOB Morocco \$135-147

Paint grade

Ground white 96-98% BaSO4, 350 mesh, 1-5 lots, del. UK £195-220

Chinese lump, CIF Gulf Coast \$230-240

Chemical grade

Chinese, CIF Gulf Coast \$138-145

Bauxite

Refractory grade

Chinese Al₂O₃/Fe₂O₃/BD, lumps 0-25mm Shanxi, FOB Xingang Round kiln 87/2.0/3.2 \$510-535 Round kiln 86/2.0/3.15-3.20 \$500-525 Round kiln 85/2.0/3.15 \$405-425 Rotary kiln 87/1.8/3.20+ \$495-535 Rotary kiln 87/1.8/3.20 \$480-525 Rotary kiln 86/1.8/3.2 \$480-520 Rotary kiln 86/1.8/3.15 \$475-525 Rotary kiln 86/1.8/3.15 \$475-525 Rotary kiln 85/1.8/3.15 \$405-425 Guizhou, FOB Zhanjiang/Fangcheng Round kiln 87/2.0/3.2 \$470-525 Guyana RASC bauxite, bulk, FOB Linden \$460-510

Abrasive grade

Chinese

FOB Zhanjiang, China \$320-350

Welding grade

FOB Zhanjiang, China \$470-480 FOB Linden, Guyana \$450-510

Bentonite

Cat litter, grade 1-5mm, bulk, FOB main European port €42-60 Indian, cat litter grade, crushed, dried, loose in bulk, FOB Kandla \$34-38 OCMA/Foundry grades, crude & dried, bulk, FOB Milos €50-75 API grade, bagged rail-car, ex-works Wyoming, per s.ton \$70-100 Foundry grade, bagged, railcars, ex-works Wyoming, per s.ton \$90-115 IOP grade, crude, bulk, ex-works Wyoming, per s.ton \$55-60

Borates/Boron minerals

Boric Acid, Latin American,
FOB Chile \$1330-1390
Colemanite, Latin American,
40% B₂O₃, FOB Buenos Aires \$690-730
Decathydrate Borax, Latin American,
FOB Buenos Aires \$885-930
Ulexite, Latin American,
40% B₂O₃, FOB Buenos Aires \$640-670
Ulexite, Latin American,
40% B₂O₃, FOB Lima \$660-695
Ulexite, Latin American,
granular 40% B₂O₃, FOB Chile \$655-690

Calcium carbonate

GCC, coated, fine grade,ex-works UK £80-103 PCC, coated, ex-works, UK £370-550 PCC, uncoated, ex-works, UK £340-550

Celestite

Turkish, 96%, SrSO4, FOB Iskenderun \$90-100

Chromite

Chemical grade, 46% Cr₂O₃, wet bulk , FOB South Africa \$360-450 Refractory grade, 46% Cr₂O₃, wet bulk , FOB South Africa **\$425-500** Foundry grade, 46% Cr₂O₃, wet bulk, FOB South Africa **\$425-500** South African, Northwest, Metallurgical grade, friable lumpy, 40% Cr₂O₃ \$210-280 Sand, moulding grade, 98% <30 mesh, del UK £390-450

Diatomite

US, calcined filter-aid grade, FOB plant \$575-640 US, flux-calcined filter-aid grade, FOB plant \$580-825

Feldspar

Turkish, Na feldspar, Crude,
-10mm size bulk, FOB Gulluk \$22-23
Turkish, Na feldspar, Glass grade,
-500 microns, bagged, FOB Gulluk \$70

Fluorspar

Acidspar filtercake, bulk

Mexican, <5ppm As FOB Tampico \$500-550 Mexican, FOB Tampico \$400-450 Chinese wet filtercake, CIF Rotterdam \$550-650 Chinese, wet filtercake, FOB China \$500-600 South African, dry basis, FOB Durban \$330-335 Chinese dry basis, CIF US Gulf Port \$550-650

Metallurgical

Chinese, min 85% CaF₂, CIF Rotterdam \$280-310 Mexican, FOB Tampico \$230-270

Chinese, min 80%, wet bulk, FOB China **\$312-332** Chinese, min 85% CaF₂, bulk, FOB China **\$339-359**

Graphite

Amorphous powder 80-85% Chinese del Europe \$600-800

Crystalline

FCL CIF main European port,

Medium, 85-87%C, +100-80 mesh \$1500-1900 Fine, 90%C, -100 mesh \$1400-1800 Medium flake 90% C, +100-80 mesh \$1500-2000 Large flake, 90% C, +80 mesh \$2000-2500 Fine, 94-97%C, -100 mesh \$2000-2400 Medium, 94-97%C, +100-80 mesh \$2200-2500 Large flake 94-97% C, +80 mesh CIF \$2500-3000 Synthetic 99.95% C, \$ per Kg, Swiss border \$7-20

Ilmenite

Australian, bulk concentrates. min 54% TiO₂, FOB **\$140-250** Australian, spot price, min 54% TiO₂, FOB **\$140-250**

Iodine

Iodine, crystal, min 99.5%, drums, per kilo, spot & contract \$80-95

Kaolin

No 1 paper coating grade, Ex-Georgia plant, s.ton \$150-195 No 2 paper coating grade, Ex-Georgia plant, s.ton \$100-155

Kyanite

Ex-works USA, 54-60% AbO₃, raw kyanite, s.ton \$224-320 54-60% AbO₃, 22 ton lots, calcined \$373-439

Lithium

Lithium carbonate, del continental, USA large contracts, \$ per lb \$2.3-2.4 Petalite, 4.2% LiO₂, FOB Durban, \$165-260 Spodumene concentrate, >7.25% LiO₂, FOB West Virginia, s.ton \$720-770 Spodumene, glass grade, 5% LiO₂, FOB West Virginia, s.ton \$460-510

Magnesia

Calcined, 90-92% MgO, lump, FOB China \$370-480 European calcined, agricultural grade, CIF Europe €220-330

Dead-burned,

Lump, FOB China 90% MgO \$400-450 92% MgO \$430-470 94-95% MgO \$460-520 97.5% MgO \$530-560

Fused,

Lump, FOB China 96% MgO \$790-860 97% MgO \$930-1050 98% MgO \$1080-1210

Magnesite

Greek, raw, max 3.5% SiO₂, FOB East Mediterranean €65-75

Mica

Indian mine scrap green (Andhra Pradesh) for mica paper, FOB Madras \$300-400 Indian wet-ground, CIF Europe \$600-900 Micronised, FOB plant, USA \$700-1000 Wet-ground, FOB plant, USA \$700-1300 Flake, FOB plant, USA \$350-500

Perlite

Coarse (filter aid)
FOB east Mediterranean, bulk €65-70
Raw, crushed, grade, big bags
FOB Turkey \$95-100
Raw, crushed, grade, bulk
FOB Turkey \$80-85

Potash

C&F Western Europe, contract, Standard \$400-490 Muriate, KCl, granular, bulk, ex-works, North America \$515-535 Muriate, KCl, standard, bulk, FOB Vancouver \$460-550 Muriate, KCl, standard, bulk, FOB Baltic \$/tonne \$350-370

Rare earth minerals

Large purchases, FOB China, \$ per Kg, Cerium oxide, 99%, \$140-159
Europium oxide, 99% \$5400-5880
Lanthanum oxide, 99% \$153-173
Neodymium oxide, 99% \$320-400
Praesodymium oxide, 99% \$235-250

Refractory clays/Mullite

Clay, Mulcoa 47% (sized in bulk bags), for coarse sizing, FOB USA, s.ton \$198

Rutile

Australian concentrate, min. 95% TiO₂, bagged, FOB **\$1348-1600** Australian concentrate, min. 95% TiO₂, large vol. for pigment, FOB \$1000-1120

Salt

Australian solar salt bulk CIF Shanghai, \$50 Industrial solar salt, ex-works China \$27-29 Industrial vacuum salt,

ex-works China \$35-40

Silica sand

Minus 20 micron, FCL, bagged >92 brightness, FOB Durban \$295 Glass sand, container, ex-works USA \$20-26

Silicon carbide

SiC, FEPA 8-220, CIF UK, black, about 99% SiC
SiC Grade 1 €1900-2100
SiC Grade 2 €1500-1650
Refractory grade,
min 98% SiC €1500-1800
min 95% SiC €1350-1450

Soda ash

Chinese synthetic soda ash, dense & light, CIF Far East \$295-330 Chinese synthetic soda ash, dense & light, FOB China \$300-315 Indian synthetic soda ash, dense & light, Domestic ex-works India \$300-348 Indian synthetic soda ash, dense & light, Export C&F India \$210-230 US natural, large contract, FOB Wyoming \$210-230

TiO₂ pigment

Bulk volume, per tonne
CFR Asia \$3300-3800
CIF Northern Europe €2975-3115
CIF USA \$2866-3175
CIF Latin America, per lb \$1.15-1.30

Vermiculite

South African, bulk, FOB Antwerp \$400-850

Wollastonite

US ex-works, s.ton Acicular minus 200 mesh \$210-240 325 mesh \$220-250 Acicular (15:-1-20:1 aspect ratio) \$444 Chinese, FOB, tonne Acicular minus 200 mesh \$80-90 325 mesh \$90-100

Zircon

FOB Australia, bulk shipments Premium \$2560-2640 Standard \$2200-2400 FOB USA, bulk shipments Premium \$2600-2800 Standard \$2495-2550 FOB South Africa, bulk shipments ceramic grade \$1500-1600

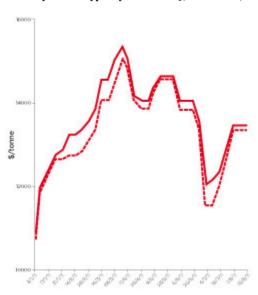
Micronised zircon

99.5% <4 μ , average particle size <0.95 μ , C&F Asia, \$1100-1400

Fused zirconia

Monoclinic, refractory/abrasive, contract, CIF main European port \$6500-7500

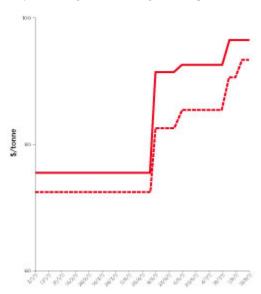
Antimony trioxide typically 99.5% SbO₃, 5 tonne lots, CIF Antwerp/Rotterdam, \$/tonne



Prices for antimony trioxide and antimony ingot continued to climb in August as demand continued to improve, market sources told IM.

"The shortage supply situation [is] unchanged in China. The prices [are going] up step by step [and will continue] until the supply is enough," a source in the market said. "The customers know the only option [is to] follow the step up [in prices]."

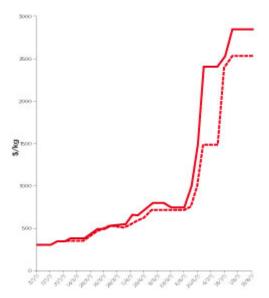
Barytes, Drilling Grade. API unground lump FOB China, \$/tonne



 $Bartyes\ prices\ in\ China,\ India\ and\ Morocco\ have\ been\ pushed\ up\ by\ weather\ conditions\ and\ shortages\ of\ the\ mineral,\ market\ participants\ told\ \textbf{IM}.$

"The Indian biennial tender just took place and ex-mine prices increased by about 75%," a source told **IM**. "The drilling market is extremely buoyant and buyers are almost bidding for material. [And the] weather has affected availability in the last twelve months in China, India and even Morocco."

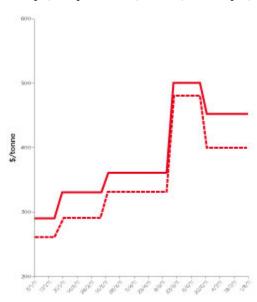
Dysprosium oxide, 99%, large purchases, FOB China, \$/kg



Prices for dysprosium have surged since the start of the year, as tightening Chinese supply exacerbated trading conditions.

State-owned trading group China Minmetals called for the Chinese rare earth industry to suspend output in August to meet national production quotas. Meanwhile, China's Ministry of Industry and Information Technology has announced that it will punish rare earth producers that do not stick to the set national production quota (see p.14).

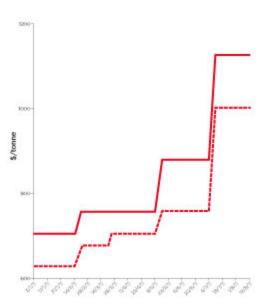
Fluorspar, acidspar filtercake, Mexican, FOB Tampico, \$/tonne



Prices for fluorspar FOB China have increased off the back of rising raw material costs, with spot prices reaching new highs in June although these have since been reported lower.

Raw material price increases and tight demand have meant that Chinese prices for fluorspar have been rising since November last year. But after recent hikes market participants are unsure if Chinese FOB price rises will continue into Q4.

Rutile, concentrate min 95% TiO2, large volumes for pigment, FOB Australia, \$/tonne



Prices for titanium dioxide feedstock mineral rutile stepped up again in August as demand outstripped supply. Currently the entire TiO₂ supply route is under pressure, with pigment producers Cristal Global, DuPont and Kronos all announcing significant TiO₂ price pushes effective throughout August and September. Whether increases will be accepted by paint producers and other consumers remains to be seen.

IM takes price ideas and comments from many sources, which are used in strict confidence to ascertain pricing levels. If you would like to contribute and enhance our pricing coverage and comment, please contact Angela Hillyard at ahillyard@indmin.com, or Siobhan Lismore at slismore@indmin.com, or Siobhan Lismore at slismore, or Siobhan Lismore at <a href="m

IMDisclaimer

Prices and other information contained in this publication have been obtained by Industrial Minerals ("IM") from various sources believed to be reliable. This information has not been independently verified by IM. Those prices and price indices which are evaluated or calculated by IM represent an approximate evaluation of current levels based upon dealings (if any) that may have been disclosed prior to publication to IM. Such prices are collated through regular contact with producers, traders and purchasers although not all market segments may be contacted prior to the evaluation, calculation, or publication of any specific price or index. Actual transaction prices will reflect quantities, grades and qualities, credit terms, and many other parameters. The prices are in no sense comparable to the quoted prices of commodities in which a formal futures market exists.

Efforts are made to ensure that pricing information is representative, but because of the possibility of human or mechanical error by our sources, IM, or others, IM does not guarantee the accuracy, currentness or completeness of any published information. Neither IM nor any of its providers of information make any warranties, express or implied, as to the results to be obtained from use of this publication, and make no express or implied warranties of fitness for a particular purpose or use. IM is not responsible for errors or omissions, or for the results obtained by the use of such information or for any decision made or action taken in reliance on such information or for any consequential, special or similar damages, and IM disclaims any liability to any person for any loss or damage caused by such errors or omissions, use or decision, including those arising from the negligence of IM, its employees, or representatives.

Evaluations or calculations of prices and price indices by IM are based upon certain market assumptions and evaluation methodologies, and may not conform to prices or information available from third parties. There may be errors or defects in such assumptions or methodologies that cause resultant evaluations to be inappropriate for use.

IM is not an investment advisor, a financial advisor or a securities broker. The information in this publication has been prepared solely for informational and educational purposes, and is not an offer to buy or sell or a solicitation of an offer to buy or sell any security, commodity or instrument or to participate in any particular trading strategy. Such information is intended to be an aid to your own investment process and your investment actions should be solely based upon your own decisions and research.