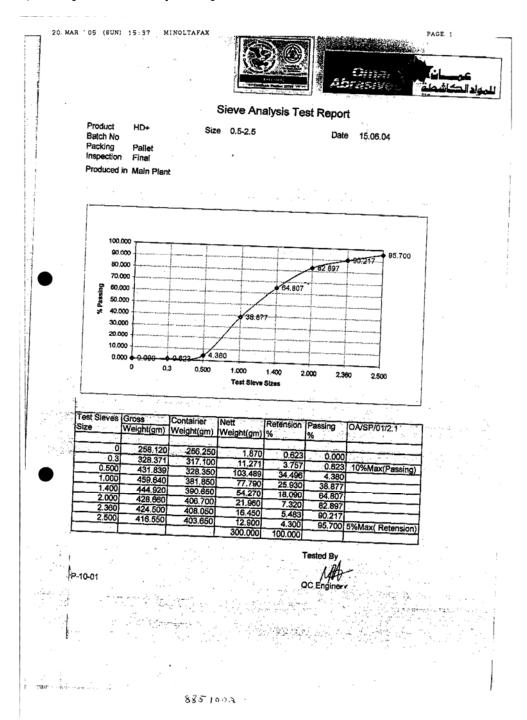
A) Test Certificate and sieve Analysis report for OMGRIT HD+ Copper Slag Abrasives :

a) Sample Sieve Analysis Report:



ATTN: MR. SRINI





MATERIAL SAFETY DATA SHEET

OMGRIT HEAVY DUTY PLUS (HD+)

Company Details:

Company

Oman Abrasives LLC

Address

Factory Marketing Office

P.O. Box 99, Postal Code 311, Sohar, Sultanate of Oman

P. O. Box 17392, Jebel Ali, Dubai, United Arab Emirates

Telephone #

++ 968 669424/5/7/8

++ 9714 883 9394

Fax #

++ 968 669429

++ 9714 883 9395

Product Name : Copper Slag

UN Number

: None Allocated

Other Names : No other names

Hazchem Code Dangerous Goods

: None Allocated : None Allocated

Class and Sub-risk : None Allocated

Poison Schedule

: Not Scheduled

Manufacturer's Product Code : OMGRIT HD+

Size Range

: 0.5 - 2.5mm

Use

: Grit Blasting Material

Physical Description / Properties

Appearance

: Black Granular Solid

Flashpoint (°C)

: Not Relevant

Boiling Point / Melting Point (°C)

: Not Relevant

Flammability Limits (%)

: Not Relevant

Vapour Pressure (Pascals or mm of Hg at 25°C)

: Not Relevant

Solubility in water (g/L)

: Non-soluble





MATERIAL SAFETY DATA SHEET

OMGRIT HEAVY DUTY PLUS (HD+)

Other Properties

Hardness : 6-7 Mohs
Chlorides : <25 ppm
Conductivity : <25 mS/m

oH : 7

Bulk Density at 25°C : 1.75 Tonnes/m³
Specific Gravity at 25°C : 3.5 kg/m³

Ingredients

Chemical Entity: Proportion by Weight: (Typical)

35% Silica (Combined as Silicate) SiO₂ <1.0% Quartz (Free Silica) Iron as Oxides FeO/Fe₃O₄ 50% Aluminium Oxide Al₂O₃ 5% Calcium Oxide CaO 5% Arsenic <0.05% Lead <0.05% Cadmium <0.005% Nickel <0.10% Cobalt <0.05% Chromium <0.30% 0.5% Copper CuO Zinc ZnO 0.5%

Health Effects:

Acute : Swallowed : No health hazard

Eye : Mechanical irritant

Skin : Direct contact with material under pressure will

abrade or damage skin

Inhale : May irritate if exposure is excessive





MATERIAL SAFETY DATA SHEET

OMGRIT HEAVY DUTY PLUS (HD+)

Chronic: Nuisance-Dust - Prolonged exposure to high level may have

debilitating effect on the longs.

First Aid : Swallowed : Not Applicable

Eye : Remove foreign body; flush with water

Skin : Clean and dress open wounds

Inhale : Move to fresh air

First Aid : General first aid equipment for treatment of

Facilities cuts and abrasion.

Advice to Doctor : Not Applicable

Exposure Standards

Quartz (respirable) 0.1mg/m³ (8-hour TWA) Inspirable Dust 10mg/m³ (8-hour TWA)

Engineering Controls:

- □ Ensure ventilation is adequate to maintain dust exposure below the exposure standard for personnel adjacent to the grit blasting area.
- □ If ventilation is not adequate use wet blasting technique or enclose blasting area.

Personal Protection:

Operator must wear an airline respirator of a type complying with OSHA, a hood or helmet, a jacket or protection suit and hand and foot protection.

Flammability:

Not flammable under conditions of use.





MATERIAL SAFETY DATA SHEET

OMGRIT HEAVY DUTY PLUS (HD+)

Storage and Transport:

No special storage or transport requirements necessary.

Spills and disposal:

No special spill and disposal procedures.

Fire/explosion hazard:

As with any dust there is the potential for a dust explosion and thus ventilation should be such that gross levels of dust do not accumulate.

Other Information:

Care should be taken when Grit is recycled as this will enhance the generation of respirable particulate. Recycling more than twice is not recommended.

Contact Point:

Mr. Arijit Das, General Manager Oman Abrasives LLC, Tel: Dubai - 04- 8839394

B)List of the previous pipeline projects for which OMGRIT has been supplied :

(We are enclosing two copies of purchase orders from two most reputed pipeline contractors of United Arab Emirates: M/s Consolidated Contractors International Ltd. (CCIC) for their North East Bab Phase 1 Development Project and M/s DODSAL for their Buhasa Project in Abu Dhabi)

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	5 N.	Tel: 02-5851667, Fax: 0 NORTH EAST BAB F				ECT		
L.P.	0. No. 2569 REV.	LOCAL	LOCAL PURCHASE ORDER				30/03/05	
To:	OMAN ABRA	_				PAGE :	1	
Plea		ollowing and debit to our acco	unt. TEL: 04,84	83 <u>93</u> 9	نسجيل الكا	<u>@ ٥٨٤ بـ ۴۸۸</u> ناه و	الرجماء تزوي 5939 59	
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1	11101705-000680-NE B1 ST-0460 - 1	GRIT, TYPE: OMGRIT COPPER S TO ACHIEVE ANCHOR PROFILE AND CLEANLINESS LEVEL OF S IN 2 TON PALLETS SHRINK WRA	50-100 MICRON A 2.5 - 50 KGS BAG	TON	200.000		-	
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		ها مباشرة عند تسلي are to be submitted, showing th						



Dodsal Pte. Limited

PAGE 5/8

P. O. Box 8034, Dubal, United Arab Emirates
Tel.: (9714) 3431515 Fax: (9714) 3434757 E-mail: dodsal@emirates.net.ae

PURCHASE ORDER

Req. No. Proj.

52/1004

52

OMAN ABRASIVES

To. Attn.

MR.MANMOHAN,FAX:04-8839395

PO. No: 1429/BUH/2005

Date: 04/05/2005

Quot. / Ref No.: REPEAT ORDER

Party Code: 0044 GPC No: BUH/864

We are pleased to place our Purchase Order on you for the following

All Figures in (AED)

			<u> </u>	
No	l Description	Quantity	Rate	Amount Fin. Code
1	COPPER SALG GRIT 0.2 TO 1MM PRODUCT OMGRIT TURBO	440.000 TON		
			Discount	0.000
			Total	

1. PO Number should appear in all communications

2. Invoice should be submitted with a copy of the PO and Delivery Order

ON CALL BASI BUHASA SITE

4. Payment Terms:

60 DAYS FROM THE DATE OF DELIVERY AND CERTIFICATION OF INVOICE

5. Special Conditions:

Project - ADCO - Buhaga Facility Davalopment Projects.

CONTRACT NO - 300000 4842 - MECHANICAL WORKS.

CONTRACT NO - 300000 4843 - CIVIL WORKS.

Authorised Signatories

Regd. Office : 6 Shenton Way, #28-09 DBS Building Tower Two, Singapore 068809

C) Re-cyclability (nos. of times for reuse)

Any particular grade of abrasives are having a spectrum of various sizes of abrasive particles. For example 0.2 to 1 mm abrasive grade will have range of sizes between 0.2 to 1 mm and during the abrasive blasting these sizes mostly have a different breakdown rate. Therefore reuse or recycle of any abrasives, including copper slag, needs that the lost particle sizes (due to breakdown) be made up by not just addition of fresh abrasives but the only the corresponding lost particles in the proportions they existed in the virgin abrasive.

In practice though, this is a very difficult condition to achieve for any abrasive, whether garnet, copper slag or any other air blasting abrasives. Therefore if you reuse or recycle any air blasting materials you may please be aware that the size wise distribution of the particles have changed and therefore the specifications are not the same as that for virgin abrasives.

Anyhow, from our practical experience we have noticed breakdown rates widely varying between 40% to 80% depending on various factors including the substrate condition and material for copper slag abrsives.

D) What is the recommendation grain size in mm for blasting of 24" dia pipeline. @ SA 2.5 to 3

We are enclosing the recommendation chart for your kind reference:

