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OLIVINE EXPENDABLE ABRASIVE DATA SHEET

PRODUCT- OLIVINE EXPENDABLE ABRASIVE

DESCRIPTION

A natural mineral blasting abrasive mined from a single large ore deposit. It is essentially a magnesium-iron silicate and contains no free silica.

<u>CHEMICAL ANALYSIS</u>	<u>ELEMENT</u>	<u>%</u>
	SILICA SiO ₂	41 - 43
	Magnesium as MgO	47.5 - 50
	Iron as Fe ₂ O ₃	6 - 8
	Aluminium as Al ₂ O ₃	0.4 - 0.5
	Nickel as NiO	0.3 - 0.35
	Chromium as Cr ₂ O ₃	0.2 - 0.3
	Manganese as MnO	0.05 - 0.1
	Calcium as CaO	0.05 - 0.1
	Free Silica	< 1

WATER SOLUBLE SALTS

Conductivity of aqueous extract	< 15 mS m ⁻¹
Chloride	< 10 ppm

MECHANICAL ANALYSIS

Hardness	7-8 Mohs
Apparent density	3.3 kg dm ⁻³
Bulk density	1.7-1.9 kg dm ⁻³
Grain shape	Angular
Colour	Pale green

<u>GRADES AVAILABLE</u>	<u>GRADE</u>	<u>SIZE RANGE (MM)</u>
	ADD20/FG	0.355 - 2.36
	AFS30	0.18 - 1.00
	ADD50/FG50	0.125 - 0.50
	AFS80	0.09 - 0.25

ABRASIVE PERFORMANCE

All grades are capable of achieving a cleanliness standard of Sa3 on mild steel, however the cleaning rate has been found to be a little slower than copper slag abrasives. The coverage achieved will be dependent on factors such as pressure at the nozzle, nozzle diameter, grit valve setting and the skill of the operator. Will remove all paint and varnish from wood with some wood grain exposure subject to operator skill.

INDUSTRY STANDARDS

Olivine abrasives are manufactured to conform to ISO 11 126-8 and BS 7079 (1989). Please note that our size ranges may vary from sizes quoted in the above standards.

PACKAGING

Olivine is packed in 50kg multi-wall paper sacks and shrink-wrapped on pallets, 1.25 tonnes per pallet. Pallets are non-returnable. Alternative packaging is available upon request and includes 25 kg multi-wall paper sacks and 1.5 tonne bulk bags.

HEALTH AND SAFETY

CDS Olivine has been approved by the U.K. Health and Safety Executive for use as a blasting abrasive. CDS Olivine abrasives, as supplied, do not present any hazard to health. Under the Control of Substances Hazardous to Health Regulations 1988, Statutory instrument No. 1657. the user is required to ensure that personal exposure to the dust generated during blasting operations is limited to 10 mg m⁻³ 8-hour TWA total inhalable dust or 5mg m⁻³ 8-hour TWA total respirable dust. Some coatings or substrates may contain components which have their own assigned occupational exposure limits, all relevant limits should be complied with.

FIRST AID

Eye Contact: Irrigate with sterile eye wash.

Skin Contact: Wash with water.

Ingestion: Nontoxic.

HANDLING AND STORAGE

The pallets supplied are suitable for handling using fork- lift trucks. The pallets should not be handled using strops slung from a crane. The pallets should not be stacked more than two high. The material should be kept dry.

DISPOSAL

Spent abrasive must be disposed of in accordance with the Environmental Protection Act 1990 and the Control of pollution Act 1974. While there are no special requirements for the disposal of the material as supplied, the spent abrasive will contain other materials, derived from the substrate being cleaned, which may be classed as Notifiable or Special under the above legislation.

OCTOBER 1999

CDS CONSULTANTS

MATERIALS SAFETY DATA

OLIVINE

1. CHEMICAL CLASSIFICATION

Olivine is a natural mineral of general chemical formula $(\text{Mg,Fe})_2\text{SiO}_4$

2. APPEARANCE, ODOUR ETC.

Green to grey sand and powder. Not soluble in water. No smell.

3. OCCUPATIONAL HEALTH DATA

Threshold limit value
(TLV)

10 mg/m³ total dust

5 mg/m³ respirable dust

These values are the same as for inert dust.

4. DANGERS TO HEALTH

General The dust type is characterised as inert mineral dust.

Inhalation /

Ingestion : Can irritate the respiratory tract and the lungs in the same manner as other types of inert dust.

Skin: No health risks other than general mechanical irritation as from other inert mineral dust.

Eyes: As for skin.

5. FIRST AID

No need for special efforts other than general first aid necessary when handling/using other inert mineral dusts.

6. PROTECTIVE MEASURES

As for handling/using inert dust generally. Unnecessary inhalation should be avoided. In close spaces the general needs for ventilation/outlet encapsulation should be fulfilled.

At especially dusty operations personal protection (breathing mask) should be used. Reference to Control of Substances Hazardous to Health Regulations 1988; Statutory Instrument No. 1657 and Personal Protective Equipment at Work Regulations 1992; Statutory Instrument No. 2966

7. REACTIVITY AND SPECIAL PRECAUTIONS

The products are stable.

8. DESTRUCTION AND CLEANING

No special routines other than forethought and caution.

9. EMERGENCY PROCEDURES AGAINST LEAKAGES

When cleaning up sand with a high proportion of fines following leakage or spillage, avoid methods (brushing or blowing) which will whirl up dust into the air.

10. PHYSICAL DATA

Specific gravity	3.3
Bulk density	1.7 – 2.0 kg/dm ³
Melting point	1760°C
Hardness	7 (Moh's scale)
Shape	Angular, edged

11. INFORMATION PERTAINING TO FLAMMABILITY

No risks.

12. TRANSPORT, STORAGE AND HANDLING

Palletised material may be handled with a forklift truck. The pallets supplied are unsuitable for lifting with strops or slings. The pallets should not be stacked more than two high. Material supplied in bulk bags should be handled in accordance with the instructions on the bulk bag.

13. DISPOSAL

Spent material must be disposed of in accordance with the Environmental Protection Act 1990 and the Control of Pollution Act 1974. While there are no special requirements for the disposal of the material as supplied, the spent abrasive will contain materials derived from the substrate being cleaned, which may be classed as Notifiable or Special under the above legislation.

14. APPROVALS

CDS Olivine abrasives are approved by the HSE under schedule 2 of the Control of Substances Hazardous to Health 1994

15. CONTACT NUMBERS

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