

C.D.S. CONSULTANTS
BWLCH TOCYN FARMHOUSE
BWLCH TOCYN
ABERSOCH
GWYNNED
NORTH WALES
LL53 7BN

CHILLED IRON GRIT IN ALL SIZES

HEALTH AND SAFETY AT WORK ACT 1974

INFORMATION REGARDING THE ABOVE ACT WITH RESPECT TO IRON
AND STEEL ABRASIVE IN THE FORM OF SHOT AND GRIT.

CHEMICAL AND PHYSICAL PROPERTIES

BOILING POINT:	3000C
MELTING POINT:	1550C STEEL 1350C IRON
BULK DENSITY:	4 TONNE/CUBIC METRE 250 LB/CUBIC FOOT
VAPOUR PRESSURE AT ROOM TEMP:	NEGLIGIBLE
VAPOUR PRESSURE AT WORKING TEMP:	NEGLIGIBLE
VAPOUR DENSITY:	GREATER THAN AIR
SOLUBILITY OR DISPERSIVENESS IN WATER:	NEGLIGIBLE. WILL CORRODE IN THE PRESENCE OF SALTS
ADHESION QUALITIES:	MAGNETIC AT N.T.P.
NON – INFLAMMABLE:	AS SUPPLIED*
NON – EXPLOSIVE:	AS SUPPLIED

*SPONTANEOUS COMBUSTION MAY OCCUR IF STORED IN BULK CONTAINERS
IN AN UNSTABLE AND HUMIDITY ENVIRONMENT.

HEALTH FACTORS

NON – TOXIC AS SUPPLIED.

NON – CORROSIVE AS SUPPLIED

NON – IRRITANT – PROVIDING STANDARD SAFETY PRECAUTIONS ARE TAKEN DURING HANDLING IE. GLOVES AND EYE PROTECTION IN THE FORM OF SAFETY SPECTACLES AND RESPIRATORY DUST MASKS.

HANDLING

TRANSPORT: ENSURE SECURE PACK*

STORAGE: KEEP DRY IN A STABLE ENVIRONMENT

USAGE: AVOID SPILLAGE*

DISPOSAL: THE COMPANY IS UNAWARE OF ANY RESTRICTIONS CONCERNING THE DISPOSAL OF ABRASIVE WASTE IN THE FORM OF SHOT AND GRIT.

*SHOULD SPILLAGE OCCUR, LOOSE PARTICLES COULD BE HAZARDOUS BY DESTABILISING FLOOR CONDITIONS.

**ABRASIVE APPLICATIONS MAY RESULT IN THE FORMATION OF DUST, PREDOMINANTLY IRON, WHICH COULD OXIDISE TO IRON OXIDE UNDER PREVAILING CONDITIONS.

IN THIS ENVIRONMENT SAFETY PRECAUTIONS RECOMMENDED INCLUDE THE USE OF GLOVES, SAFETY SPECTACLES/GOGGLES AND RESPIRATORY DUST MASKS.

DEFINITION OF DUSTS

DUST AS OPPOSED TO SPECIFIC DUSTS ARE DEFINED IN THE HSE PUBLICATION EH 40/91 AS FOLLOWS :

“TOTAL INHALABLE DUST IS THE FRACTION OF AIRBORNE MATERIAL WHICH ENTERS THE NOSE AND MOUTH DURING BREATHING, AND, IS THEREFORE, AVAILABLE FOR DEPOSITION IN THE RESPIRATORY TRACT”

“THE DUST HAS AN OCCUPATIONAL EXPOSURE STANDARD (OES) OF 10MG/M₃ 8 HOUR TIME WEIGHTED AVERAGE (TWA)”

“RESPIRABLE DUST IS INTENDED TO SIMULATE THE FRACTION WHICH PENETRATES TO THE GAS EXCHANGE REGION OF THE LUNG”. THE DUST HAS AN OES OF 5 MG/M₃ 8 HOUR TWA.

OCCUPATIONAL EXPOSURE

AS OES DEFINED IN EH40/91 STATES THAT ‘AN OES IS THE CONCENTRATION OF AN AIRBORNE SUBSTANCE, AVERAGED OVER A REFERENCE PERIOD, AT WHICH, ACCORDING TO CURRENT KNOWLEDGE, THERE IS NO EVIDENCE THAT

IT IS LIKELY TO BE INJURIOUS TO EMPLOYEES IF THEY ARE EXPOSED BY INHALATION, DAY AFTER DAY TO THE CONCENTRATION, AND WHICH IS SPECIFIED IN A LIST APPROVED BY THE HSC'.

N.B. THESE NOTES AND OBSERVATIONS ARE IN NO WAY INTENDED TO SUPERSEDE ANY FACTORY ACT OR LEGISLATED REGULATIONS COVERING ANY ASPECT OF ABRASIVE USAGE.

DISPOSAL OF ABRASIVE DUSTS

IT IS RECOMMENDED THAT TO MINIMISE THE POSSIBILITY OF SPONTANEOUS COMBUSTION, COLLECTION SKIPS/CONTAINERS SHOULD BE EMPTIED AT FREQUENT INTERVALS, SO AVOIDING ANY UNDUE BUILD UP. ON TIPPING, THE DUST SHOULD BE AS WIDELY SPREAD AS PRACTICALLY POSSIBLE, AGAIN MINIMISING CONCENTRATION. THE PROCEDURES ARE AT PRESENT ACHIEVING AN ACCEPTABLE DEGREE OF SUCCESS, WITH INVESTIGATION CONTINUING FOR FURTHER IMPROVEMENT.

AVERAGE CHEMICAL ANALYSIS.

STEEL

C	SI	S	P	MN
0.90%	0.85%	0.030%	0.020%	0.85%

IRON

C	SI	S	P	MN
2.90%	1.40%	0.100%	0.100%	0.35%

OTHERS BOTH IRON AND STEEL

NI	CR	CU	V	AS	PB
<0.10%	<0.10%	<0.20%	0.001%	0.005%	0.001%

SB	TI
0.002%	0.020%

MIN % BETW EEN	SIZES SHOW	80% 2.0- 2.80 MM	80% '70- 2.40MM	80% 1.4- 2.00MM	75% 1.2-1.70 MM	75% 1.0-1.40 MM	75% 0.85- 1.20 MM	70% 0.60- 1.00 MM	70% 0.42- 0.85 MM	65% 0.30- 0.71 MM	65% 0.18- 0.42 MM	60% 0.125- 0.30 MM
APER TURE MM	SIEVE NO	G80	G66	G55	G47	G39	G34	G24	G17	G12	G07	G05
3.35	5											
2.80	6	ALL PASS										
2.40	7		ALL PASS									
2.00	8	80% MIN		ALL PASS								
1.68	10	90% MIN	80% MIN		ALL PASS							
1.40	12		90% MIN	80% MIN		ALL PAS						
1.20	14			90% ACC	75% MIN		ALL PASS					
1.00	16				90% MIN	75% MIN		ALL PASS				
0.850	18					90% MIN	75% MIN		ALL PASS			
0.710	22						90% MIN			ALL PASS		
0.600	25							70% MIN				
0.500	30							85% MIN				
0.420	36			NONE PASS					70% MIN		ALL PASS	
0.355	44								85% MIN			
0.300	52									65% MIN		ALL PASS
0.180	85									85% ACC	65% MIN	
0.125	120									85% ACC	60% MIN	ALL PASS

SIZE SPECIFICATION