



MATERIAL SAFETY DATA SHEET

EXTRUDED GRAPHITE

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SECTION I - Composition/Information on Ingredients

Chemical name	Synthetic graphite
EC No.	231-955-3
CAS-No.	7782-42-5
Concentration *	> 99%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

The full text for all R-phrases is displayed in Section 16.

SECTION II - Manufacturer's Information

Manufacturer Name	Coidan Graphite Products Ltd
Street	Station Road
Address2	Kirk Hammerton
Address 3	YORK
Country	UK
Post Code	YO26 8DQ
Emergency Phone	(01423) 330492
Information Phone	(01423) 330492

SECTION III - Hazard Identification

This material is not considered to be hazardous according to regulatory guidelines (see Section 15).

Processing may generate graphite dusts and fumes with the below listed potential health effects.

Potential health effects

Inhalation:	NO INHALATION HAZARD IN MANUFACTURED AND SHIPPED STATE. DUST AND FUMES GENERATED FROM THE MATERIAL CAN ENTER THE BODY BY INHALATION. HIGH CONCENTRATIONS OF DUST AND FUMES MAY IRRITATE THE THROAT AND RESPIRATORY SYSTEM AND CAUSE COUGHING. FREQUENT INHALATION OF FUME/DUST OVER A LONG PERIOD OF TIME INCREASES THE RISK OF DEVELOPING LUNG DISEASES.
Eye contact:	DUST IN THE EYES WILL CAUSE IRRITATION. EXPOSED MAY EXPERIENCE EYE TEARING, REDNESS, AND DISCOMFORT.
Skin contact:	UNDER NORMAL CONDITIONS OF INTENDED USE, THIS MATERIAL DOES NOT POSE A RISK TO HEALTH. DUST MAY IRRITATE SKIN.
Ingestion:	NOT RELEVANT, DUE TO THE FORM OF THE PRODUCT IN ITS MANUFACTURED AND SHIPPED STATE. HOWEVER, INGESTION OF DUSTS GENERATED DURING WORKING OPERATIONS MAY CAUSE NAUSEA AND VOMITING.
Other health effects:	PROLONGED AND REPEATED OVEREXPOSURE TO DUST CAN LEAD TO PNEUMOCONIOSIS. PRE-EXISTING PULMONARY DISORDERS, SUCH AS EMPHYSEMA, MAY POSSIBLY BE AGGRAVATED BY PROLONGED EXPOSURE TO HIGH CONCENTRATIONS OF GRAPHITE DUSTS.
Potential physical / chemical effects:	BULK MATERIAL IS NON-COMBUSTIBLE. THE MATERIAL MAY FORM DUST AND CAN ACCUMULATE ELECTROSTATIC CHARGES, WHICH MAY CAUSE AN ELECTRICAL SPARK (IGNITION SOURCE).
Environment:	THE PRODUCT IS NOT EXPECTED TO BE HAZARDOUS TO THE ENVIRONMENT.

SECTION IV - First Aid Measures

Inhalation:	MOVE INJURED PERSON INTO FRESH AIR AND KEEP PERSON CALM UNDER OBSERVATION. FOR BREATHING DIFFICULTIES, OXYGEN MAY BE NECESSARY. GET MEDICAL ATTENTION IMMEDIATELY.
Eye contact:	FLUSH THOROUGHLY WITH WATER FOR AT LEAST 15 MINUTES. DO NOT RUB EYE. IF IRRITATION OCCURS, GET MEDICAL ASSISTANCE.
Skin contact:	WASH CONTACT AREAS WITH SOAP AND WATER. IF SKIN IRRITATION OR AN ALLERGIC SKIN REACTION DEVELOPS, GET MEDICAL ATTENTION.
Ingestion:	RINSE MOUTH THOROUGHLY IF DUST IS INGESTED. GET MEDICAL ATTENTION IF ANY DISCOMFORT CONTINUES.

SECTION V - Fire-fighting Measures

Extinguishing media:	DUST: EXTINGUISH WITH FOAM, CARBON DIOXIDE, DRY POWDER OR WATER FOG.
Inappropriate extinguishing media:	NONE.
Special fire fighting procedures:	COOL MATERIAL EXPOSED TO HEAT WITH WATER SPRAY AND REMOVE IT IF NO RISK IS INVOLVED.
Unusual fire & explosion hazards:	THERMAL DECOMPOSITION MAY PRODUCE SMOKE, OXIDES OF CARBON AND LOWER MOLECULAR WEIGHT ORGANIC COMPOUNDS WHOSE COMPOSITION HAVE NOT BEEN CHARACTERIZED.
Hazardous combustion products:	CARBON OXIDES, UNIDENTIFIED ORGANIC COMPOUNDS
Protective measures:	SELF-CONTAINED BREATHING APPARATUS, OPERATED IN POSITIVE PRESSURE MODE AND FULL PROTECTIVE CLOTHING MUST BE WORN IN CASE OF FIRE.

SECTION VI - Accidental Release Measures

Personal precautions:	AVOID GENERATION AND SPREADING OF DUST. AVOID INHALATION OF DUST AND CONTACT WITH SKIN AND EYES. REMOVE SOURCES OF IGNITION. WEAR SUITABLE PROTECTIVE CLOTHING AND GLOVES. SEE SECTION 8 FOR PERSONAL PROTECTIVE EQUIPMENT.
Spill cleanup methods:	COLLECT DUST USING A VACUUM CLEANER EQUIPPED WITH HEPA FILTER. IF NOT POSSIBLE, GENTLY MOISTEN DUST WITH WATER FOG BEFORE IT IS COLLECTED WITH SHOVEL, BROOM OR THE LIKE. COLLECT IN APPROVED CONTAINERS AND SEAL SECURELY. CONTAINERS MUST BE LABELED. FOR WASTE DISPOSAL, SEE SECTION 13.
Environmental precautions:	NO SPECIFIC PRECAUTIONS. DO NOT ALLOW MATERIAL TO ENTER STORM OR SANITARY SEWERS, GROUNDWATER OR SOIL.
Notification procedures:	IN THE EVENT OF ACCIDENTAL RELEASE, NOTIFY RELEVANT AUTHORITIES IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

SECTION VII - Handling and Storage

Handling:	RISK OF BEING STRUCK BY ROLLING OR FALLING PRODUCT. USE WORK METHODS WHICH MINIMISE DUST PRODUCTION. AVOID INHALATION OF DUST AND CONTACT WITH SKIN AND EYES. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES WHEN THERE IS A RISK OF DUST EXPLOSION. KEEP AWAY FROM HEAT, SPARK, OPEN FLAMES AND OTHER SOURCES OF IGNITION. USE EXPLOSION-PROOF ELECTRICAL EQUIPMENT IF AIRBORNE DUST LEVELS ARE HIGH. OBSERVE GOOD INDUSTRIAL HYGIENE PRACTICES. KEEP THE WORKPLACE CLEAN.
Storage:	KEEP AWAY FROM HEAT, SPARK, OPEN FLAMES AND OTHER SOURCES OF IGNITION. STORE AWAY FROM INCOMPATIBLE MATERIALS. KEEP CONTAINER CLOSED. STORE AWAY FROM: OXIDIZING AGENTS. REDUCING AGENTS.

SECTION VIII - Exposure Controls/Personal Protection

Exposure limit values:

Chemical name	SYNTHETIC GRAPHITE (RESPIRABLE DUST.)
Source	EH40/2005
Type	TWA
Workplace exposure limits	4 MG/M ³
Chemical name	SYNTHETIC GRAPHITE (INHALABLE DUST.)
Source	EH40/2005
Type	TWA
Workplace exposure limits	10 MG/M ³

Engineering controls:	PROVIDE ADEQUATE VENTILATION. MECHANICAL VENTILATION OR LOCAL EXHAUST VENTILATION MAY BE REQUIRED. PROVIDE EXPLOSION-PROOF VENTILATION FOR HIGH DUST CONCENTRATIONS. OBSERVE OCCUPATIONAL EXPOSURE LIMITS AND MINIMISE THE RISK OF INHALATION OF DUST AND FUMES. PROVIDE ACCESS TO WASHING FACILITIES INCLUDING SOAP, SKIN CLEANSER AND FATTY CREAM.
Respiratory protection:	PERSONAL PROTECTION EQUIPMENT SHOULD BE CHOSEN ACCORDING TO THE CEN STANDARDS AND IN DISCUSSION WITH THE SUPPLIER OF THE PERSONAL PROTECTIVE EQUIPMENT. SEEK ADVICE FROM LOCAL SUPERVISOR.
Eye protection:	WEAR SAFETY GLASSES WITH SIDE SHIELDS (OR GOGGLES).
Hand protection:	WEAR SUITABLE PROTECTIVE GLOVES TO PREVENT CUTS AND ABRASIONS. SUITABLE GLOVES CAN BE RECOMMENDED BY THE GLOVE SUPPLIER.
Skin protection:	WEAR APPROPRIATE CLOTHING TO PREVENT REPEATED OR PROLONGED SKIN CONTACT.
Hygiene measures:	ALWAYS OBSERVE GOOD PERSONAL HYGIENE MEASURES, SUCH AS WASHING AFTER HANDLING THE MATERIAL AND BEFORE EATING, DRINKING, AND/OR SMOKING. ROUTINELY WASH WORK CLOTHING AND PROTECTIVE EQUIPMENT TO REMOVE CONTAMINANTS.
Environmental exposure controls:	ENVIRONMENTAL MANAGER MUST BE INFORMED OF ALL SIGNIFICANT SPILLAGES.

SECTION IX - Physical and Chemical Properties

Physical state:	SOLID, VARIOUS GEOMETRICAL SHAPES
Colour:	BLACK
Odour:	ODOURLESS
Odour threshold:	NOT APPLICABLE
pH:	NOT APPLICABLE
Melting point:	>2760°C (5000°F)
Freezing point:	NOT APPLICABLE
Boiling Point:	NOT APPLICABLE

Relative density:	2 (APPROXIMATE)
Bulk density:	1.55 G/CC - 1.85 G/CC
Vapour pressure:	NOT APPLICABLE
Vapour density (air=1):	NOT APPLICABLE
Evaporation rate:	NOT APPLICABLE
Solubility in water:	INSOLUBLE
Solubility (other):	NO DATA AVAILABLE.
Partition coefficient (n-octanol/water):	NO DATA AVAILABLE.
Flash point:	NOT APPLICABLE
Autoignition temperature:	NOT APPLICABLE
Flammability limit - lower(%):	NOT APPLICABLE
Flammability limit - upper (%):	NOT APPLICABLE

SECTION X - Stability and Reactivity

Stability:	MATERIAL IS STABLE UNDER NORMAL CONDITIONS.
Conditions to avoid:	DUST IS COMBUSTIBLE, AVOID SOURCES OF IGNITION AND STRONG OXIDIZING AGENTS.
Incompatible materials:	STRONG OXIDIZING AGENTS. STRONG REDUCING AGENTS.

Hazardous decomposition products:

At elevated temperatures:	CARBON OXIDES, UNIDENTIFIED ORGANIC COMPOUNDS
Possibility of hazardous reactions:	WILL NOT OCCUR.

SECTION XI - Toxicological Information

Acute toxicity: Test results

Oral LD50 (Mouse):	5000 MG/KG
Dermal LD50 (Mouse):	5000 MG/KG
Inhalation:	HIGH CONCENTRATIONS OF DUST MAY IRRITATE THROAT AND RESPIRATORY SYSTEM AND CAUSE COUGHING. PROLONGED AND REPEATED OVEREXPOSURE TO DUST CAN LEAD TO PNEUMOCONIOSIS.
Eye contact:	DUST MAY IRRITATE THE EYES. EXPOSED MAY EXPERIENCE EYE TEARING, REDNESS, AND DISCOMFORT.
Skin contact:	DUST MAY IRRITATE SKIN. MAY CAUSE IRRITATION THROUGH MECHANICAL ABRASION. EXPOSED MAY EXPERIENCE ITCHING AND REDNESS.
Ingestion:	NOT RELEVANT, DUE TO THE FORM OF THE PRODUCT. HOWEVER, INGESTION OF DUSTS GENERATED DURING WORKING OPERATIONS MAY CAUSE NAUSEA AND VOMITING.
Sensitisation:	NO DATA AVAILABLE.
Carcinogenicity:	NONE.
Listed carcinogens:	NONE
Mutagenesis:	NO DATA AVAILABLE.
Reproductive toxicity:	NO DATA AVAILABLE.

SECTION XII - Ecological Information

Ecotoxicity:	THE PRODUCT IS NOT EXPECTED TO BE HAZARDOUS TO THE ENVIRONMENT.
Mobility:	NOT RELEVANT, DUE TO THE FORM OF THE PRODUCT.
Persistence and degradability:	THE DEGRADABILITY OF THE PRODUCT HAS NOT BEEN STATED.
Bioaccumulation potential:	NO DATA AVAILABLE ON BIOACCUMULATION.
Other adverse effects:	NONE KNOWN.

SECTION XIII - Disposal Considerations

General information:	DISPOSE OF WASTE AND RESIDUES IN ACCORDANCE WITH LOCAL AUTHORITY REQUIREMENTS.
Disposal methods:	DISPOSAL RECOMMENDATIONS ARE BASED ON MATERIAL AS SUPPLIED. DISPOSAL MUST BE IN ACCORDANCE WITH CURRENT APPLICABLE LAWS AND REGULATIONS, AND MATERIAL CHARACTERISTICS AT TIME OF DISPOSAL. RECOVER AND RECLAIM OR RECYCLE, IF PRACTICAL.
European waste codes Used product:	10 02 99

SECTION XIV -Transport Information

ADR/RID Not regulated. IMDG	NOT REGULATED.
IATA	NOT REGULATED.

SECTION XV - Regulatory Information

The product has not been classified as dangerous according to the legislation in force.

SECTION XVI - Other information

Wording of the R-phrases in sections 2 and 3:	NONE
Inventory status:	**#ALL_AICS_CHINA_DSL_EINECS_KECI_PICCS_TSCA - ALL SUBSTANCES ARE LISTED ON AICS, IECSC, DSL, EINECS, KECI, PICCS, TSCA.**
General information:	COIDAN GRAPHITE PRODUCTS ADVISES THE USERS OF THIS PRODUCT TO STUDY THIS MATERIAL SAFETY DATA SHEET (MSDS) AND BECOME AWARE OF PRODUCT HAZARDS AND SAFETY INFORMATION. TO PROMOTE SAFE USE OF THIS PRODUCT, USERS SHOULD NOTIFY THEIR EMPLOYEES, AGENTS AND CONTRACTORS OF THE INFORMATION ON THIS MSDS AND ANY PRODUCT HAZARDS AND SAFETY INFORMATION.
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