

## MATERIAL SAFETY DATA SHEET

# GRAPHITE & CARBON FELT

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### SECTION I - Material Identity

Part Number/Trade Name	Graphite & Carbon Felt
National Stock Number	n/a
CAGE Code	n/a
Part Number Indicator	n/a
MSDS Number	4080
HAZ Code	Class 3
UN No	1993
Packing Group	n/a

### 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

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MSDS Preparer's Information

Date MSDS Prepared/Revised      MAY 2011  
Active Indicator                              N/A

### SECTION III - Hazardous Ingredients

Material	GRAPHITE (CAS #7782-42-5)
Percent	0-100
ACGIH (TLV)	2 MG/M <sup>3</sup> RESPIRABLE
OSHA (PEL)	5 MG/M <sup>3</sup> RESPIRABLE

Material	CARBON (CAS #7440-44-0)
Percent	0-100
ACGIH (TLV)	10 MG/M <sup>3</sup>
OSHA (PEL)	15 MG/M <sup>3</sup>

### SECTION IV - Physical Data

Appearance	GREY-BLACK PARTICLES
Odour	NONE
Melting Point	>5000°F
Specific Gravity	~1.7
Vapor Density (Air = 1)	NA
Vapor Density	NA
% Volatile by Volume	NOT VOLATILE
Bulk Density	NA
Boiling Point	NA
% Solubility (H <sub>2</sub> O)	INSOLUBLE
Evaporation Rate (BUOAC = 1)	NA
Other	NA

### SECTION V - Fire and Explosion Hazard Data

Flash Point & Method	NA
Flammable Limits LEL	NA
Flammable Limits UEL	NA
Extinguishing Media	BULK MATERIAL IS NONCOMBUSTIBLE. DUSTS ARE COMBUSTIBLE - USE WATER, CARBON DIOXIDE, DRY CHEMICAL OR FOAM.
Special Fire Fighting Procedures	MATERIAL IN OR NEAR FIRES SHOULD BE COOLED WITH A WATER SPRAY OR FOG. A SELF-CONTAINED BREATHING APPARATUS, OPERATING IN THE POSITIVE PRESSURE MODE, AND FULL FIRE FIGHTING PROTECTIVE CLOTHING SHOULD BE WORN FOR COMBATING FIRES.

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Unusual Fire/Explosion Hazards

THERMAL DECOMPOSITION OR COMBUSTION MAY PRODUCE DENSE SMOKE, OXIDES OF CARBON AND LOWER MOLECULAR WEIGHT ORGANIC COMPOUNDS WHOSE COMPOSITIONS HAVE NOT BEEN CHARACTERIZED.

FINELY DIVIDED CARBON DUSTS FORM POTENTIALLY EXPLOSIVE MIXTURES IN AIR AT CONCENTRATIONS GREATER THAN 1.8 OUNCE PER CUBIC FOOT.

## SECTION VI - Health Hazard Data

LD50 Oral (Ingestion)	NOT ESTABLISHED FOR PRODUCT
LD50 Dermal (Skin Contact)	NOT ESTABLISHED FOR PRODUCT
LD50 Inhalation	NOT ESTABLISHED FOR PRODUCT
Primary Route of Exposure	INHALATION OF DUSTS GENERATED DURING PROCESSING AND HANDLING AND DERMAL AND OCULAR CONTACT
Threshold Limit Values (TLV)	NOT ESTABLISHED FOR PRODUCT - SEE SECTION 3
Effect of Overexposure - Acute	HIGH CONCENTRATIONS OF PRODUCT DUSTS MAY BE IRRITATING TO THE EYES, SKIN, MUCOUS MEMBRANES AND RESPIRATORY TRACT.
Effect of Overexposure - Chronic	INHALATION OF HIGH CONCENTRATIONS OF PRODUCT DUSTS OVER PROLONGED PERIODS OF TIME MAY CAUSE PNEUMOCONIOSIS. SYMPTOMS CAN INCLUDE COUGH, SHORTNESS OF BREATH AND A DECREASE IN PULMONARY FUNCTION,  PRE-EXISTING PULMONARY DISORDERS, SUCH AS EMPHYSEMA, MAY POSSIBLY BE AGGRAVATED BY PROLONGED EXPOSURE TO HIGH CONCENTRATIONS OF GRAPHITE AND/OR CARBON DUSTS.

## SECTION VII - Emergency First Aid Procedures

For Overexposure to Particulate Matter	REMOVE THE EXPOSED PERSON TO FRESH AIR. IF BREATHING IS DIFFICULT, OXYGEN MAY BE ADMINISTERED. IF BREATHING HAS STOPPED, ARTIFICIAL RESPIRATION SHOULD BE STARTED IMMEDIATELY. SEEK MEDICAL ATTENTION.
If the Material Enters the Eyes	FLUSH WITH WATER FOR AT LEAST 15 MINUTES. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS.
If Material gets on the Skin	WASH THOROUGHLY WITH MILD SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. DERMATITIS SHOULD BE TREATED SYMPTOMATICALLY BY A PHYSICIAN.
If the Material is Ingested	(THIS IS NOT EXPECTED TO BE A SIGNIFICANT ROUTE OF ENTRY INTO THE BODY)

## SECTION VIII - Physical Hazards

GRAPHITE AND CARBON DUSTS ARE ELECTRICALLY CONDUCTIVE. ACCUMULATIONS OF DUST MAY CAUSE SHORTING OF ELECTRICAL CIRCUITS. CARE SHOULD BE TAKEN TO SEAL ELECTRICAL CIRCUITS AND SWITCHES THAT MAY BE AFFECTED. DUSTS SHOULD NOT BE EMITTED TO THE ATMOSPHERE WHERE THEY MAY SETTLE ON AND CAUSE SHORTING OF OUTSIDE ELECTRICAL EQUIPMENT.

## SECTION IX - Special Protection Information

Ventilation	IF DUSTS ARE GENERATED DURING PROCESSING OR USE, LOCAL EXHAUST VENTILATION SHOULD BE PROVIDED TO MAINTAIN EXPOSURES BELOW THE LIMITS CITED IN SECTION 1. DESIGN DETAILS FOR LOCAL EXHAUST VENTILATION SYSTEMS MAY BE FOUND IN THE LATEST EDITION OF "INDUSTRIAL VENTILATION: A MANUAL OF RECOMMENDED PRACTICES" PUBLISHED BY THE ACGIH COMMITTEE ON INDUSTRIAL VENTILATION, P.O. BOX 16153, LANSING, MI 48910. THE NEED FOR LOCAL EXHAUST VENTILATION SHOULD BE EVALUATED BY A PROFESSIONAL INDUSTRIAL HYGIENIST. LOCAL EXHAUST VENTILATION SYSTEMS SHOULD BE DESIGNED BY A PROFESSIONAL ENGINEER.
Respiratory	IF EXPOSURES EXCEED THE LIMITS CITED IN SECTION 1 BY LESS THAN A FACTOR OF 10, USE AS A MINIMUM A NIOSH-APPROVED N95 RESPIRATOR. IF EXPOSURES EXCEED 10 TIMES THE LIMITS CITED IN SECTION 1, CONSULT A PROFESSIONAL INDUSTRIAL HYGIENIST OR YOUR RESPIRATORY PROTECTIVE EQUIPMENT SUPPLIER FOR SELECTION OF THE PROPER EQUIPMENT. THE EVALUATION OF THE NEED FOR RESPIRATORY PROTECTION SHOULD BE DETERMINED BY A PROFESSIONAL INDUSTRIAL HYGIENIST.
Eye Protection	PROTECTIVE GLASSES WITH SIDE SHIELD SHOULD BE WORN TO PREVENT EYE CONTACT WITH PARTICULATE MATTER.
Protective Gloves	PROTECTIVE GLOVES ARE RECOMMENDED TO PREVENT CUTS, ABRASIONS AND IRRITATION DURING HANDLING AND PROCESSING.
Other	WHERE NORMAL WORK CLOTHES BECOME SOILED BY DUSTS, COVERALLS ARE RECOMMENDED. WASH SOILED CLOTHING BEFORE REUSE.
General	ALL CHEMICALS SHOULD BE HANDLED SO AS TO PREVENT EYE CONTACT AND EXCESSIVE OR REPEATED SKIN CONTACT. APPROPRIATE EYE AND SKIN PROTECTION SHOULD BE EMPLOYED. INHALATION OF DUSTS AND VAPORS SHOULD BE AVOIDED.

## SECTION X - Chemical Reactivity

Condition Causing Instability	NONE THAT ARE KNOWN. MATERIAL IS STABLE. HAZARDOUS POLYMERIZATION WILL NOT OCCUR.
Incompatibility (Materials to Avoid)	AVOID CONTACT WITH STRONG OXIDIZING AND REDUCING AGENTS. SEE SECTION 3 FOR POSSIBLE COMBUSTION AND/OR THERMAL DECOMPOSITION PRODUCTS. THESE WOULD BE EXPECTED DURING EMERGENCY CONDITIONS.
Hazardous Decomposition Products	SEE SECTION 3 FOR POSSIBLE COMBUSTION AND/OR THERMAL DECOMPOSITION PRODUCTS. THESE WOULD BE EXPECTED DURING EMERGENCY CONDITIONS.
Special Sensitivity	NONE THAT ARE KNOWN.

## SECTION XI - Storage Information

Precautions to be taken in Handling and Storage	STORE IN LABELED, CLOSED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAMES AND OTHER SOURCES OF IGNITION. DO NOT STORE WITH OR NEAR INCOMPATIBLE CHEMICALS CITED IN SECTION 8. DO NOT LET CONTAINERS OF MATERIAL ACCUMULATE IN THE WORKPLACE. PROMPTLY CLEAN UP ANY SPILLS THAT MAY OCCUR. ANY DUSTS GENERATED DURING HANDLING OR PROCESSING SHOULD BE CLEANED UP BY WET MOPPING OR VACUUMING. DRY SWEEPING CAN RESUSPEND PARTICULATE MATTER INTO THE ATMOSPHERE.
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## SECTION XII - Spill, Leak and Disposal Information

Steps to be Taken in Case Material is Spilled or Released	SPILLED OR RELEASED MATERIAL SHOULD BE PICKED UP WITH A SUITABLE IMPLEMENT AND RETURNED TO THE ORIGINAL CONTAINER IF REUSEABLE. IF NOT REUSEABLE, THE MATERIAL SHOULD BE PLACED IN DOT-APPROVED CONTAINERS FOR DISPOSAL. PERSONNEL INVOLVED IN THE CLEANUP SHOULD WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. SEE SECTION 7. UNAUTHORIZED PERSONNEL SHOULD BE KEPT CLEAR OF THE AREA OF SPILLS OR RELEASES. DO NOT ALLOW MATERIAL TO ENTER STORM OR SANITARY SEWERS, GROUNDWATER OR SOIL. RELEASES MAY BE REPORTABLE TO LOCAL, STATE, AND FEDERAL AUTHORITIES.
EPA RCRA ID Number	NOT APPLICABLE
Waste Disposal Method	MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS. DISPOSAL IN AN EPA-APPROVED LANDFILL IS RECOMMENDED.

## SECTION XIII - Additional Comments/Information

- 1 NOTICE FROM COIDAN GRAPHITE PRODUCTS - THE DATA IN THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DO NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS. THE OPINIONS EXPRESSED HEREIN ARE THOSE OF QUALIFIED EXPERTS WITHIN COIDAN GRAPHITE PRODUCTS. WE BELIEVE THAT THE INFORMATION CONTAINED HEREIN IS CURRENT AS TO THE DATE OF ISSUE OF THIS MATERIAL SAFETY DATA SHEET. SINCE THE USE OF THIS INFORMATION AND THESE OPINIONS AND THE CONDITIONS OF USE OF THE PRODUCT ARE NOT WITHIN THE CONTROL OF COIDAN GRAPHITE PRODUCTS, IT IS THE USER'S OBLIGATION TO DETERMINE THE CONDITIONS OF SAFE USE OF THIS PRODUCT.
- 2 NOT REGULATED AS HAZARDOUS FOR TRANSPORTATION
- 3 ALL COMPONENTS ARE LISTED ON:
- US - TSCA INVENTORY
  - EC - EINECS INVENTORY
  - CANADA - DSL