



## MATERIAL SAFETY DATA SHEET

# GRAPHITE ADHESIVE

<b>SECTION I</b>	<b>Material Identity</b>	<b>SECTION VIII</b>	<b>Control Measures</b>
<b>SECTION II</b>	<b>Manufacturer's Information</b>	<b>SECTION IX</b>	<b>Label Data</b>
<b>SECTION III</b>	<b>Physical/Chemical Characteristics</b>	<b>SECTION X</b>	<b>Transportation Data</b>
<b>SECTION IV</b>	<b>Fire and Explosion Hazard Data</b>	<b>SECTION XI</b>	<b>Site Specific/Reporting Information</b>
<b>SECTION V</b>	<b>Reactivity Data</b>	<b>SECTION XII</b>	<b>Ingredients/Identity Information</b>
<b>SECTION VI</b>	<b>Health Hazard Data</b>		
<b>SECTION VII</b>	<b>Precautions for Safe Handling and Use</b>		

### SECTION I - Material Identity

Part Number/Trade Name	Graphite Adhesive
National Stock Number	n/a
CAGE Code	n/a
Part Number Indicator	n/a
MSDS Number	2628
HAZ Code	B

### SECTION II - Manufacturer's Information

Manufacturer Name	Coidan Graphite Products Ltd
Street	Station Road
Address 2	Kirk Hammerton
Address 3	YORK
Country	UK
Post Code	YO26 8DQ
Emergency Phone	(01423) 330492
Information Phone	(01423) 330492

MSDS Preparer's Information

Date MSDS Prepared/Revised      MAY 2011  
Active Indicator                              n/a

## SECTION III - Physical/Chemical Characteristics

Hazard Storage Compatibility Code	NR
NRC Licence Number	NR
Net Propellant Weight (Ammo)	NR
Appearance/Odor	Black Liquid
Boiling Point	170 DEG C
Melting Point	NR
Vapor Pressure	NR
Vapor Density	NR
Specific Gravity	1.1
Decomposition Temperature	NR
Evaporation Rate	NR
Solubility in Water	<2
Percent Volatiles by Volume	<16
Chemical pH	NR
Corrosion Rate	NR
Container Pressure Code	4
Temperature Code	8
Product State Code	U

## SECTION IV - Fire and Explosion Hazard Data

Flash Point	163 C
Flash Point Method	UNK
Lower Explosion Limit	NR
Upper Explosion Limit	NR
Extinguishing Media	USE WATER FOG, CARBON DIOXIDE, DRY CHEMICAL OR FOAM
Special Fire Fighting Procedures	WEAR FULL FIRE FIGHTING PROTECTIVE CLOTHING AND SELF CONTAINED BREATHING APPARATUS. MATERIAL NEAR FIRE SHOULD BE COOLED WITH WATER SPARY OR FOG. CAUTION WHEN US
Unusual Fire/Explosion Hazards	THERMAL DECOMPOSITION OR COMBUSTION MAY PRODUCE DENSE SMOKE, OXIDES OF CARBON, AS WELL AS LOW MOLECULAR WEIGHT ORGANIC COMPOUNDS WHOSE COMPOSITIONS HAVE NOT BEEN IDENTIFIED

## SECTION V - Reactivity Data

Stability	YES
Stability Conditions to Avoid	HIGH TEMPERATURES
Materials to Avoid	AVOID CONTACT WITH STRONG OXIDIZING AND REDUCING AGENTS AND STRONG ACIDS AND BASES
Hazardous Decomposition Products	SMOKE, OXIDES OF CARBON, LOW MOLECULAR WEIGHT ORGANIC COMPOUNDS WHOSE COMPOSITIONS HAVE NOT BEEN CHARACTERISED
Polymerization Conditions to Avoid	HEXAMTHYLENETETRAMINE REACTS VIOLENTLY WITH NA2O2

## SECTION VI - Health Hazard Data

Route of Entry: Skin	YES
Route of Entry: Ingestion	YES
Route of Entry: Inhalation	YES
Health Hazards - Acute and Chronic	LIQUID FURFURYL ALCOHOL AND HIGH CONCENTRATIONS OF VAPOURS MAY BE HIGHLY IRRITATING TO THE EYES, SKIN, MUCOUS MEMBRANES AND RESPIRATORY TRACT. INGESTION MAY CAUSE GASTROINTESTINAL IRRITATION, NAUSEA, CRAMPING AND VOMITING. EXPOSURE TO HIGH CONCENTRATIONS OF VAPOURS MAY CAUSE HEADACHE, DIZZINESS, NAUSEA, DISORIENTATION, FA
Symptoms of Overexposure	IRRITATING TO THE EYES, SKIN, MUCOUS MEMBRANES, RESPIRATORY TRACT. DERMATITIS. COUGH, SHORTNESS OF BREATH AND DECREASE IN PULMONARY FUNCTION
Medical Conditions Aggravated by Exposure	PRE-EXISTING PULMONARY, DERMAL, KIDNEY, AND LIVER DISORDERS MAY POSSIBLY BE AGGRAVATED BY PROLONGED EXPOSURE TO HIGH CONCENTRATIONS OF THE MATERIALS
Emergency/First Aid Procedures	INHALE: REMOVE TO FRESH AIR, SEEK MEDICAL ATTENTION. EYES: FLUSH WITH WATER FOR 15 MIN. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS. SKIN: WASH THE AFFECTED AREA WITH MILD SOAP AND WATER. SEEK MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. INGEST: GIVE TWO GLASSES OF WATER TO DILUTE AND INDUCE VOMITING

## SECTION VII - Precautions for Safe Handling and Use

Steps if Material Released/Spilled	ELIMINATE ALL IGNITION SOURCES, ISOLATE SPILL, EVACUATE PERSONNEL. PUMP INTO CONTAINERS. ABSORB RESIDUE WITH CLAY, SAND OR OTHER SUITABLE MATERIAL. DO NOT ALLOW MATERIAL OR RINSE WATER TO ENTER STORM OR SANITARY SEWERS
Waste Disposal Method	IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS
Handling and Storage Precautions	STORE IN LABELLED, CLOSED CONTAINERS AWAY FROM HEAT, SPARKS, OPEN FLAMES AND OTHER SOURCES OF IGNITION. DO NOT STORE WITH OR NEAR INCOMPATIBLE CHEMICALS

Other Precautions

CARBON AND GRAPHITE DUSTS ARE ELECTRICALLY CONDUCTIVE. ACCUMULATIONS OF DUSTS MAY CAUSE SHORTING OF ELECTRICAL CIRCUITS. CARE SHOULD BE TAKEN TO SEAL ELECTRICAL CIRCUITS AND SWITCHES THAT MAY BE AFFECTED. INCLUDES OUTSIDE ELECTRICAL EQUIPMENT

## SECTION VIII - Control Measures

Respiratory Protection	1/2 FACE RESPIRATOR WITH ORGANIC VAPORS AND PARTICULATE CARTRIDGES
Ventilation	LOCAL EXHAUST
Protective Gloves	BUTYL RUBBER GLOVES
Eye Protection	CHEMICAL SPLASH GOGGLES
Other Protective Equipment	WHERE NORMAL WORK CLOTHES MAY BECOME CONTAMINATED BY PRODUCT, PROTECTIVE BUTYL RUBBER COATED COVERALLS ARE RECOMMENDED
Work Hygienic Practices	THOROUGHLY WASH ANY CONTAMINATED CLOTHING BEFORE REUSE
Disposal Code	O

## SECTION IX - Label Data

Protect Eye	YES
Protect Skin	YES
Protect Respiratory	YES
Chronic Indicator	UNKNOWN
Contact Code	UNKNOWN
Fire Code	UNKNOWN
Health Code	UNKNOWN
React Code	UNKNOWN

## SECTION X - Transportation Data

Container Quantity	15
Unit of Measure	LB

## SECTION XI - Site Specific/Reporting Information

Volatile Organic Compounds (P/G)	0
Volatile Organic Compounds (G/L)	0

## SECTION XII - Ingredients/Identity Information

Ingredient # 01  
Ingredient Name 1,3,5,7-TETRAAZATRICYCLO[3.3.1.1<sup>3,7</sup>]DECANE  
CAS Number 100970  
Proprietary NO

Ingredient # 02  
Ingredient Name (POWDER) CARBON  
CAS Number 7440440  
Proprietary NO

Ingredient # 03  
Ingredient Name (POWDER) PHENOLIC RESIN  
CAS Number 9403354  
Proprietary NO

Ingredient # 04  
Ingredient Name (POWDER) TRANSIL OIL  
CAS Number 64742456  
Proprietary NO

Ingredient # 05  
Ingredient Name (POWDER) HEXAMETHYLENETETRAMINE  
CAS Number 108970  
Proprietary NO