

## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

### 1.1 Product identifier

**Product name** CARBON FIBER AND CARBON THREAD  
**Synonym(s)** 11431-AB, 11431-BA, 11433-AB, 11433-BA - PRODUCT CODE(S) • 11435-AB, 11435-BA, 11436-BA, 11436-AB - PRODUCT CODE(S)

### 1.2 Uses and uses advised against

**Use(s)** AASPO • JP129  
INDUSTRIAL APPLICATIONS

### 1.3 Details of the supplier of the safety data sheet

**Supplier name** DEFENCE CAPABILITY ACQUISITION AND SUSTAINMENT GROUP  
**Address** Brindabella Park, ACT, Australia, 2600  
**Telephone** 02 6266 7054 (0800 - 1700 Mon-Fri)  
**Fax** 02 6266 7646  
**Email** casg.occhyg@defence.gov.au  
**Website** Not supplied

### 1.4 Emergency telephone number(s)

**Emergency** 13 11 26 (24 hours)

## 2. HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

### 2.2 Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

### 2.3 Other Hazards

No information provided.

## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

### 3.1 Substances / Mixtures

Ingredient	CAS number	EC number	Content
GRAPHITE	7782-42-5	231-955-3	>99.99%

## 4. FIRST AID MEASURES

### 4.1 Description of first aid measures

**Eye** If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.

**Inhalation** If inhaled, remove from contaminated area. Apply artificial respiration if not breathing.

**Skin** If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.

**Ingestion** For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.

**First aid facilities** Eye wash facilities should be available.

### 4.2 Most important symptoms and effects, both acute and delayed

No known toxicological effects from this product. May cause mechanical irritation.

### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

Product name **CARBON FIBER AND CARBON THREAD**

## 5. FIREFIGHTING MEASURES

### 5.1 Extinguishing media

Water fog or foam. Prevent contamination of drains and waterways.

### 5.2 Special hazards arising from the substance or mixture

Combustible. May evolve carbon oxides and hydrocarbons when heated to decomposition. Dust may form explosive mixtures with air.

### 5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

### 5.4 Hazchem code

None allocated

## 6. ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

### 6.2 Environmental precautions

Prevent product from entering drains and waterways.

### 6.3 Methods of cleaning up

Contain spillage, then collect and place in suitable containers for disposal. Avoid generating dust.

### 6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

## 7. HANDLING AND STORAGE

### 7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

### 7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs. Ensure containers are adequately labelled and tightly closed when not in use.

### 7.3 Specific end use(s)

No information provided.

## 8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

### 8.1 Control parameters

#### Exposure standards

Substance	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Graphite (all forms except fibres)	SWA (AUS)	--	3	--	--

#### Biological limits

No biological limit values have been entered for this product.

### 8.2 Exposure controls

#### Engineering Controls

Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical explosion proof extraction ventilation is recommended. Wet where possible. Maintain dust levels below the recommended exposure standard.

Product name **CARBON FIBER AND CARBON THREAD**

**PPE**

<b>Eye/Face</b>	Wear dust-proof goggles.
<b>Hand</b>	Wear PVC or rubber gloves.
<b>Body</b>	No PPE specified.
<b>Respiratory</b>	No PPE specified.



## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

<b>Appearance</b>	BLACK FIBRES
<b>Odour</b>	ODOURLESS
<b>Odour Threshold</b>	NOT AVAILABLE
<b>Flammability</b>	NON FLAMMABLE
<b>Flash Point</b>	NOT RELEVANT
<b>Boiling Point</b>	> 3000°C
<b>Melting Point</b>	NOT AVAILABLE
<b>Evaporation Rate</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Specific Gravity</b>	2 to 2.5
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour Density</b>	NOT AVAILABLE
<b>Vapour Pressure</b>	NOT AVAILABLE
<b>Upper Explosion Limit</b>	NOT RELEVANT
<b>Lower Explosion Limit</b>	NOT RELEVANT
<b>Partition Coefficient</b>	NOT AVAILABLE
<b>Autoignition Temperature</b>	NOT AVAILABLE
<b>Decomposition Temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive Properties</b>	NOT AVAILABLE
<b>Oxidising Properties</b>	NOT AVAILABLE

### 9.2 Other information

No information provided.

Product name **CARBON FIBER AND CARBON THREAD**

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## 10. STABILITY AND REACTIVITY

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### 10.1 Reactivity

Carefully review all information in sections 10.2 to 10.6.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Polymerization will not occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures above 290°C.

### 10.5 Incompatible materials

Incompatible with oxidising agents (e.g. hypochlorites) and acids (e.g. nitric acid).

### 10.6 Hazardous decomposition products

May evolve carbon oxides and hydrocarbons when heated to decomposition.

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## 11. TOXICOLOGICAL INFORMATION

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### 11.1 Information on toxicological effects

<b>Acute toxicity</b>	This product is expected to be of low acute toxicity. Under normal conditions of use, adverse health effects are not anticipated.
<b>Skin</b>	Not classified as a skin irritant. Prolonged or repeated contact may result in mild irritation.
<b>Eye</b>	Not classified as an eye irritant. Contact with dust or fibres may result in mechanical irritation.
<b>Mutagenicity</b>	Not classified as a mutagen.
<b>Carcinogenicity</b>	Not classified as a carcinogen.
<b>Reproductive</b>	Not classified as a reproductive toxin.
<b>STOT - single exposure</b>	Not classified as causing organ damage from single exposure. However, over exposure to dust may result in irritation of the nose and throat, with coughing.
<b>STOT - repeated exposure</b>	Not classified as causing organ damage from repeated exposure.
<b>Aspiration</b>	This product is a solid and aspiration hazards are not expected to occur.
<b>Sensitisation</b>	Not classified as causing skin or respiratory sensitisation.

Product name **CARBON FIBER AND CARBON THREAD**

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

No information provided.

### 12.2 Persistence and degradability

No information provided.

### 12.3 Bioaccumulative potential

No information provided.

### 12.4 Mobility in soil

No information provided.

### 12.5 Results of PBT and vPvB assessment

No information provided.

### 12.6 Other adverse effects

No information provided.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Waste disposal** Dispose of to an approved landfill or waste processing site. Contact the manufacturer/supplier for additional information (if required).**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	Land Transport (ADG)	Sea Transport (IMDG/IMO)	Air Transport (IATA/ICAO)
<b>14.1 UN number</b>	None Allocated	None Allocated	None Allocated
<b>14.2 UN proper shipping name</b>	None Allocated	None Allocated	None Allocated
<b>14.3 Transport hazard classes</b>			
<b>DG Class</b>	None Allocated	None Allocated	None Allocated
<b>Subsidiary risk(s)</b>	None Allocated	None Allocated	None Allocated
<b>14.4 Packing group</b>	None Allocated	None Allocated	None Allocated
<b>14.5 Environmental hazards</b>		None Allocated	
<b>14.6 Special precautions for user</b>			
<b>Hazchem Code</b>	None Allocated		

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**Poison schedule** A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).**Classifications** None allocated**Risk phrases** None allocated**Safety phrases** None allocated**Inventory listing(s)** **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
All components are listed on AICS, or are exempt.

Product name **CARBON FIBER AND CARBON THREAD**

### 15.2 Chemical safety assessment

No information provided.

## 16. OTHER INFORMATION

**Additional information** This 'Defence Converted' Safety Data Sheet (SDS) was prepared based on the information from the original 'Manufacturer's' SDS. Defence Converted SDSs are for Defence use or undertakings only. Defence is not a distributor or retail supplier of this product.

**COMBUSTIBLE - EXPLOSIVE CARBONACEOUS DUST:** Carbonaceous/organic dusts have the potential, with dispersion, to present an explosion hazard if an ignition source exists. All equipment used to handle, transfer or store this product **MUST BE** cleaned thoroughly prior to cutting, welding, drilling or exposure to any other form of heat or ignition sources. If bulk stored, containers should be ventilated on a routine basis to avoid vapour accumulation (where applicable, eg for flocculants).

**RESPIRATORS:** In general the use of respirators should be limited and engineering controls employed to avoid exposure. If respiratory equipment must be worn ensure correct respirator selection and training is undertaken. Remember that some respirators may be extremely uncomfortable when used for long periods. The use of air powered or air supplied respirators should be considered where prolonged or repeated use is necessary.

#### HEALTH EFFECTS FROM EXPOSURE:

It should be noted that the effects from exposure to this product will depend on several factors including: frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a ChemAlert report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

#### PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:

The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

Abbreviations	
ACGIH	American Conference of Governmental Industrial Hygienists
CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
CNS	Central Nervous System
EC No.	EC No - European Community Number
EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
GHS	Globally Harmonized System
GTEPG	Group Text Emergency Procedure Guide
IARC	International Agency for Research on Cancer
LC50	Lethal Concentration, 50% / Median Lethal Concentration
LD50	Lethal Dose, 50% / Median Lethal Dose
mg/m <sup>3</sup>	Milligrams per Cubic Metre
OEL	Occupational Exposure Limit
pH	relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline).
ppm	Parts Per Million
STEL	Short-Term Exposure Limit
STOT-RE	Specific target organ toxicity (repeated exposure)
STOT-SE	Specific target organ toxicity (single exposure)
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons
SWA	Safe Work Australia
TLV	Threshold Limit Value

**Product name**                    **CARBON FIBER AND CARBON THREAD**

TWA                                    Time Weighted Average

**Report Status**                    This ChemAlert report has been independently compiled by RMT's scientific department utilising the original Safety Data Sheet ('SDS') for the product provided to RMT by the manufacturer. The information is based on the latest chemical and toxicological research and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. It is an independent collation by RMT of information obtained from the original SDS for this product. Its content has not been authorised or verified by the manufacturer / distributor of the chemical to which it relates.

This ChemAlert report does not constitute the manufacturer's original SDS and is not intended to be a replacement for same. It is provided to subscribers of ChemAlert as a reference tool only, is not all-inclusive and does not represent any guarantee as to the properties of the product. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer.

While RMT has taken all due care to include accurate and up-to-date information in this ChemAlert report, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this ChemAlert report.

**Prepared By**                    Risk Management Technologies  
5 Ventnor Ave, West Perth  
Western Australia 6005  
Phone: +61 8 9322 1711  
Fax: +61 8 9322 1794  
Email: [info@rmt.com.au](mailto:info@rmt.com.au)  
Web: [www.rmt.com.au](http://www.rmt.com.au)

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**End of Report**