



## MATERIAL SAFETY DATA SHEET

<b>THERMACT</b>	<b>Multifunctional Combustion Improver For Coal</b>
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Issue date: 20 January, 2013 modified: 21 July, 2014

### 1. Identification of Product and Company/Enterprise

Name of product : THERMACT Multifunctional Combustion Improver For Coal

Application : Multifunctional Combustion Improver For Coal

Manufacturer : ABHITECH Energycon Ltd.

A/1020, Oberoi Garden Estates, Chandivali Farms Road,  
Chandivali, Mumbai-400072 India  
Tel.: 91-22-2847 9999, 91-22-2847 4924  
Fax: 91-22-2847 9988

Email. : [abhitech@abhitechenergycon.com](mailto:abhitech@abhitechenergycon.com)

Web Site : [www.abhitechenergycon.com](http://www.abhitechenergycon.com)

Emergency phone: Health Toxicological Information Service ABHITECH Energycon Ltd.  
A/1020, Oberoi Garden Estates, Chandivali Farms Road, Chandivali,  
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### 2. Composition: A Multifunctional Combustion Improver Catalyst for improving combustion efficiency of Coal

Description	CAS-number	%
Carbon	7440-44-0	94-96
Others		4-6

### 3. Classification of hazard:

No labelling required

Hazard symbol: none

**Caution:** Wet material removes oxygen from air. Before entering such an area, work procedures for low oxygen levels should be taken to ensure ample oxygen availability.

### 4. First Aid Measures

In case of inhalation: move person to fresh air. If breathing is difficult, seek medical advice.

In case of swallowing: Give several glasses of water to drink to dilute. In case of sickness, seek medical advice.

Skin contact: take off contaminated clothes and wash the skin immediately with plenty of soap and running water.

In case of eye contact: rinse with plenty of running water for at least 15 minutes -, pull away your eyelid and move around your eye-ball. In case of irritation, seek medical advice.



## 5. Fire Fighting Measures

Flammable material. The dust of the material forms explosive mixture with air.

- 5.1. Fire extinguishing media: water, water spray.
- 5.2. Use water to keep containers cool and removal of containers from the danger area is suggested.
- 5.3. In case of fire, hazardous decomposition products occur: many CO<sub>x</sub>, different hydrocarbons. Do not inhale occurring gases.
- 5.4. In the event of a fire, wear full protective antistatic clothing, protective gloves, protective shoes and use air-respirator that can protect your face and eyes and also useful for hazardous decomposition products.
- 5.5. During/After fire-extinction you have to dispose remaining combustion residue and fire-fighting water according to regulations.

## 6. Accidental release measures

### 6.1. Personal protection

Remove all sources of ignition. Provide sufficient ventilation. Smoking is prohibited! People who are involved in and appointed for area immunization can be in the room/working area.

Wear protective clothing, protective gloves, non-slipping protective shoes, goggles, (use protective clothing and protective equipment as in section 8), and breathing apparatus is needed.

### 6.2. In case of spill

Clean up spills. Reduce airborne dust with water spray. Use non-sparking tools. Use depurator/detergent for cleaning contaminated area.

Disposal: according to state and local disposal regulations.–

In case of release to the environment (natural waters, communal drain), inform local authorities.

Warning! Spent product may have absorbed hazardous materials.

### 6.3. Protection of the environment

Avoid material release to the environment (natural waters, ground and communal drain).

## 7. Handling and storage

Handling:

Use as the instructions. Use only non-sparking tools, including fan also. Avoid static electrification. Prevent dispersion of dust. If it is not possible to avoid the disperse of the dust into air, clean up frequently. Avoid contact of the powder with skin, eye, clothing.

Keep to the personal hygienic regulations and eating, drinking and smoking is prohibited during use.

Storage: Separate from flammable materials, strong oxidizing materials.

Store in original, closed container, on a cool, dry well-ventilated place, away from consumables. Keep it away from source of ignition, direct sunlight, smoking is prohibited! Outside storage is preferred.

Caution! Wet material removes oxygen from air. Before entering such an area, work procedures for low oxygen levels should be taken to ensure ample oxygen availability.



## 8. Safe/harmless working conditions

### 8.1. Technical instructions

During use, ensure sufficient ventilation of the place.

### 8.2. Derived limit of working area:

Ensure observing derived limit of working area:

other inert dust: 10 mg/m<sup>3</sup> total 6 mg/m<sup>3</sup> respirable

If it is needed, the concentration of the air pollution can be checked by making measures of the air.

Biological exposure rate (BER) allowable limit:

### 8.3. Personal protection

Respiratory protection: in case of dust dispersion and insufficient ventilation, wear suitable respiratory equipment.

Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Body-surface: protective clothing and shoes.

Hand protection: protective gloves (if it gets stained, change it).

Eye protection: goggles and/or face protection.

Wear clean protective clothing, clean protective equipment. The contaminated clothing has to be changed, the skin has to be washed (the material contains components the skin also can absorb).

### 8.4. Further information

Avoid dispersion of and getting the material onto clothing, skin and into eye with carefully working with it. After use, wash your hands with running water and soap. Eye-bath bottle is recommended to keep with you. During work, to eat and smoke is prohibited.

Employees should be examined frequently by a doctor (pre- and periodical aptitude test).

During work with the material, job exposition check and risk estimation is necessary.

## 9. Physical and chemicals properties:

- Appearance : Crystalline powder
- Colour : Black
- Odour : Odour less
- Specific Gravity : 0.5-1.9
- pH of 10 % suspension : 7.6
- Auto-Ignition Point : More Than 600 °C

## 10. Stability and reactivity

Stable under ordinary conditions of use and storage.

Hazardous polymerization: will not occur.

Conditions to avoid: risk of auto-ignition on high temperature. Dust explosion hazard.

Incompatibilities: liquid air and strong oxidizing materials (ozone, liquid oxygen, chlorine, permanganate).

Hazardous decomposition products: many CO<sub>x</sub> and different hydrocarbons.



- 11. Toxicological information**  
Inhalation: Inhalation of the dust may cause mild irritation to the respiratory tract. Acute inhalation LC50 (rat) is >62,4 mg/L.  
Ingestion: No adverse effects expected. May cause mild irritation to the gastrointestinal tract. Acute oral LD50 (rat) is >10g/Kg.  
Skin contact: May cause mild irritation and redness. Primary skin irritation index (rabbit): 0.  
Eye contact: May cause mild irritation.
- 12. Eco toxicological information:**  
Components of the material are not hazardous to the environment.  
Avoid material release to natural waters, ground and communal drain.
- 13. Disposal considerations**  
Dispose of container and unused contents in accordance with Government Order .  
Furthermore see Section 6.
- 14. Transport information**  
ADR/RID class: none  
IMDG class: none  
ICAO/IATA: none
- 15. Regulatory information**  
Labelling: not required  
Keep away from children.  
The dust of the powder must not be inhaled.  
Relating law and order must be complied:
- 16. Other information**  
Application area : Combustion Improver for Solid Fuels - fuel additive  
Before applying the material, the Manual of Recommended Practices carefully should be read.

This Safety Data Sheet was made according to the Safety Data Sheet reviewed on 27/07/2010 by the manufacturer and other registrational documentations.  
The information, data and recommendations included in this safety data sheet based on our best knowledge and on the issue date we find them correct, valid, and we believe in this.