

ACTIVATED CARBON

Chemwatch GHS Safety Data Sheet
For Domestic Use Only.
Dec-23-2009
NC614TDP

CHEMWATCH 4658-37
Version No:4

Section 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME

ACTIVATED CARBON

PRODUCT USE

Used according to manufacturer's directions.
For products 73, 75 and 76.

SUPPLIER

Company: Mars Fishcare Inc
Address:
50 East Hamilton Street
Chalfont
PA, 18914
USA
Telephone: +1 215 822 8181
Fax: +1 215 822 1906

Section 2 - HAZARDS IDENTIFICATION

CHEMWATCH HAZARD RATINGS

Flammability	1	
Toxicity	2	
Body Contact	2	
Reactivity	1	
Chronic	2	

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

GHS Classification

Eye Irritation Category 2B
Respiratory Irritation Category 3



EMERGENCY OVERVIEW

HAZARD

WARNING

Determined by Chemwatch using GHS criteria:
H335 H320
May cause respiratory irritation
Causes eye irritation

PRECAUTIONARY STATEMENTS

Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.

Response

IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Call a POISON CENTER or doctor/physician if you feel unwell.
If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed.
Store locked up.

Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

NAME	CAS RN	%
carbon, steam activated - not regulated	7440-44-0	100

Section 4 - FIRST AID MEASURES

SWALLOWED

- Immediately give a glass of water.
- First aid is not generally required. If in doubt, contact a Poisons Information Centre or a doctor.

EYE

- If this product comes in contact with the eyes:
- Wash out immediately with fresh running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Seek medical attention without delay; if pain persists or recurs seek medical attention.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

SKIN

- If skin or hair contact occurs:
- Flush skin and hair with running water (and soap if available).
- Seek medical attention in event of irritation.

INHALED

- If fumes or combustion products are inhaled remove from contaminated area.
- Lay patient down. Keep warm and rested.
- Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.
- Transport to hospital, or doctor.

NOTES TO PHYSICIAN

Treat symptomatically.

Section 5 - FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

FIRE/EXPLOSION HAZARD

- Solid which exhibits difficult combustion or is difficult to ignite.
- Avoid generating dust, particularly clouds of dust in a confined or unventilated space as dusts may form an explosive mixture with air, and any source of ignition, i.e. flame or spark, will cause fire or explosion.
- Dust clouds generated by the fine grinding of the solid are a particular hazard; accumulations of fine dust (420 micron or less) may burn rapidly and fiercely if ignited; once initiated larger particles up to 1400 microns
- A dust explosion may release of large quantities of gaseous products; this in turn creates a subsequent pressure rise of explosive force capable of damaging plant and buildings and injuring people.
- Usually the initial or primary explosion takes place in a confined space such as plant or machinery, and can be of sufficient force to damage or rupture the plant. If the shock wave from the primary explosion enters t
- Dry dust can also be charged electrostatically by turbulence, pneumatic transport, pouring, in exhaust ducts and during transport.
- Build-up of electrostatic charge may be prevented by bonding and grounding.
- Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.
- All movable parts coming in contact with this material should have a speed of less than 1-metre/sec.

Combustion products include: carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.

May emit poisonous fumes.

May emit corrosive fumes.

FIRE INCOMPATIBILITY

- Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

PERSONAL PROTECTION

Glasses:

Chemical goggles.

Gloves:

PVC chemical resistant type.

Respirator:

Particulate

Section 6 - ACCIDENTAL RELEASE MEASURES

MINOR SPILLS

- Remove all ignition sources.
- Clean up all spills immediately.
- Avoid contact with skin and eyes.
- Control personal contact by using protective equipment.
- Use dry clean up procedures and avoid generating dust.
- Place in a suitable, labelled container for waste disposal.

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

Section 7 - HANDLING AND STORAGE

PROCEDURE FOR HANDLING

NOTE:

- Wet, activated carbon removes oxygen from the air thus producing a severe hazard to workers inside carbon vessels and in enclosed or confined spaces where activated carbons might accumulate.
- Before entry to such areas, sampling and test procedures for low oxygen levels should be undertaken; control conditions should be established to ensure the availability of adequate oxygen supply.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- Prevent concentration in hollows and sumps.
- DO NOT enter confined spaces until atmosphere has been checked.
- DO NOT allow material to contact humans, exposed food or food utensils.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Keep containers securely sealed when not in use.
- Avoid physical damage to containers.
- Always wash hands with soap and water after handling.
- Work clothes should be laundered separately. Launder contaminated clothing before re-use.
- Use good occupational work practice.
- Observe manufacturer's storing and handling recommendations.
- Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

SUITABLE CONTAINER

- Polyethylene or polypropylene container.
- Check all containers are clearly labelled and free from leaks.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry area protected from environmental extremes.
- Store away from incompatible materials and foodstuff containers.
- Protect containers against physical damage and check regularly for leaks.
- Observe manufacturer's storing and handling recommendations

For major quantities:

- Consider storage in banded areas - ensure storage areas are isolated from sources of community water (including stormwater, ground water, lakes and streams).
- Ensure that accidental discharge to air or water is the subject of a contingency disaster management plan; this may require consultation with local authorities.

SAFE STORAGE WITH OTHER CLASSIFIED CHEMICALS



+ + + + X +

+: May be stored together

O: May be stored together with specific preventions

X: Must not be stored together

Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE CONTROLS

US OSHA Permissible Exposure Levels (PELs)

Z	Material	TWA ppm	TWA mg/m ³	STEL ppm	STEL mg/m ³	Peak ppm	Peak mg/m ³	Max excursion ppm	Max excursion mg/m ³	Max excursion duration (mins)	TWA F/CC
Z1	Carbon black		3.5								
Source	Material		TWA ppm		TWA mg/m ³		STEL ppm		STEL mg/m ³		Notes
US NIOSH Recommended Exposure Limits (RELs)	carbon, steam activated - not regulated (Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs))				0.1						
US NIOSH Recommended	carbon, steam activated -				3.5						

Exposure Limits (RELs)	not regulated (Carbon black)		
Canada - Alberta Occupational Exposure Limits	carbon, steam activated - not regulated (Carbon black)	3.5	
US ACGIH Threshold Limit Values (TLV)	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Wyoming Toxic and Hazardous Substances Table Z1 Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - Quebec Permissible Exposure Values for Airborne Contaminants (English)	carbon, steam activated - not regulated (Carbon black)	3.5	
US OSHA Permissible Exposure Levels (PELs) - Table Z1	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - British Columbia Occupational Exposure Limits	carbon, steam activated - not regulated (Carbon black)	3.5	2B
US - Tennessee Occupational Exposure Limits - Limits For Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Vermont Permissible Exposure Limits Table Z-1-A Transitional Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Idaho - Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - Ontario Occupational Exposure Limits	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Minnesota Permissible Exposure Limits (PELs)	carbon, steam activated - not regulated (Carbon black)	3.5	
US - California Permissible Exposure Limits for Chemical Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Hawaii Air Contaminant Limits	carbon, steam activated - not regulated (Carbon black)	3.5	7
US - Alaska Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - Saskatchewan Occupational Health and Safety Regulations - Contamination Limits	carbon, steam activated - not regulated (Carbon black)	3.5	7
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	carbon, steam activated - not regulated (Carbon black)	3.5	7
US - Washington Permissible exposure limits of air contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	7
Canada - Nova Scotia Occupational Exposure Limits	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - Prince Edward Island Occupational Exposure Limits	carbon, steam activated - not regulated (Carbon black)	3.5	
Canada - Northwest Territories Occupational Exposure Limits (English)	carbon, steam activated - not regulated (Carbon black)	3.5	7
US - Michigan Exposure Limits for Air Contaminants	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Oregon Permissible Exposure Limits (Z1)	carbon, steam activated - not regulated (Carbon black)	3.5	
US - Minnesota Permissible Exposure Limits (PELs)	carbon, steam activated - not regulated (Graphite, synthetic - Total dust)	10	
Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances	carbon, steam activated - not regulated (Graphite (synthetic))	(See Table 11)	
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	carbon, steam activated - not regulated (Graphite, synthetic - Respirable Fraction)	5	
US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants	carbon, steam activated - not regulated (Graphite, synthetic - Total dust)	10	

EMERGENCY EXPOSURE LIMITS

Material	Revised IDLH Value (mg/m3)	Revised IDLH Value (ppm)
carbon, steam activated - not regulated	1,750	

MATERIAL DATA

ACTIVATED CARBON:

Not available

CARBON, STEAM ACTIVATED - NOT REGULATED:

Sensory irritants are chemicals that produce temporary and undesirable side-effects on the eyes, nose or throat. Historically occupational exposure standards for these irritants have been based on observation of OSHA (USA) concluded that exposure to sensory irritants can:

- cause inflammation
- cause increased susceptibility to other irritants and infectious agents

- lead to permanent injury or dysfunction
 - permit greater absorption of hazardous substances and
 - acclimate the worker to the irritant warning properties of these substances thus increasing the risk of overexposure.
- The TLV-TWA for carbon black is recommended to minimise complaints of excessive dirtiness and applies only to commercially produced carbon blacks or to soots derived from combustion sources containing abs
- The NIOSH REL-TWA was "selected on the basis of professional judgement rather than on data delineating safe from unsafe concentrations of PAHs".
- This limit was justified on the basis of feasibility of measurement and not on a demonstration of its safety.
- NOTE: This substance has been classified by the ACGIH as A4 NOT classifiable as causing Cancer in humans.
- for carbon blacks of mineral origin
 TLV TWA: 3.5 mg/m³ A4
 ES TWA: 3 mg/m³
 Carbon blacks of vegetable origin not listed.

PERSONAL PROTECTION



EYE

- Safety glasses with side shields.
- Chemical goggles.
- Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each work

HANDS/FEET

- Wear chemical protective gloves, eg. PVC.
- Wear safety footwear or safety gumboots, eg. Rubber.

OTHER

- Overalls.
- P.V.C. apron.
- Barrier cream.
- Skin cleansing cream.
- Eye wash unit.

RESPIRATOR

Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
10 x ES	P1 Air-line*	-	PAPR-P1 -
50 x ES	Air-line**	P2	PAPR-P2
100 x ES	-	P3	-
		Air-line*	-
100+ x ES	-	Air-line**	PAPR-P3

* - Negative pressure demand ** - Continuous flow.

The local concentration of material, quantity and conditions of use determine the type of personal protective equipment required. For further information consult site specific CHEMWATCH data (if available), or your C

ENGINEERING CONTROLS

- Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.
 - Exhaust ventilation should be designed to prevent accumulation and recirculation of particulates in the workplace.
 - If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered. Such protection might consist of:
 - (a): particle dust respirators, if necessary, combined with an absorption cartridge;
 - (b): filter respirators with absorption cartridge or canister of the right type;
 - (c): fresh-air hoods or masks
 - Build-up of electrostatic charge on the dust particle, may be prevented by bonding and grounding.
 - Powder handling equipment such as dust collectors, dryers and mills may require additional protection measures such as explosion venting.
- Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to efficiently remove the contaminant.

Type of Contaminant:	Air Speed:
direct spray, spray painting in shallow booths, drum filling, conveyer loading, crusher dusts, gas discharge (active generation into zone of rapid air motion)	1-2.5 m/s (200-500 f/min.)
grinding, abrasive blasting, tumbling, high speed wheel generated dusts (released at high initial velocity into zone of very high rapid air motion).	2.5-10 m/s (500-2000 f/min.)

Within each range the appropriate value depends on:

Lower end of the range	Upper end of the range
1: Room air currents minimal or favourable to capture	1: Disturbing room air currents
2: Contaminants of low toxicity or of nuisance value only	2: Contaminants of high toxicity
3: Intermittent, low production.	3: High production, heavy use
4: Large hood or large air mass in motion	4: Small hood-local control only

Simple theory shows that air velocity falls rapidly with distance away from the opening of a simple extraction pipe. Velocity generally decreases with the square of distance from the extraction point (in simple cases). 1

Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE

Black granules of powder with no odour; insoluble in water.

PHYSICAL PROPERTIES

Does not mix with water.
 Floats on water.

State	Divided Solid	Molecular Weight	Not Applicable
Melting Range (°F)	Not Available	Viscosity	Not Applicable
Boiling Range (°F)	Not Applicable	Solubility in water (g/L)	Immiscible
Flash Point	Not	pH (1%)	Not

(°F)	Applicable	solution)	Applicable
Decomposition Temp (°F)	Not Available	pH (as supplied)	Not Applicable
Autoignition Temp (°F)	Not Applicable	Vapour Pressure (mmHG)	Not Applicable
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	0.25 - 0.60
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Applicable
Volatile Component (%)	Not Applicable	Evaporation Rate	Not Applicable

Section 10 - CHEMICAL STABILITY AND REACTIVITY INFORMATION

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
 - Product is considered stable.
 - Hazardous polymerisation will not occur.
- For incompatible materials - refer to Section 7 - Handling and Storage.

Section 11 - TOXICOLOGICAL INFORMATION

CHEMWATCH HAZARD RATINGS

Flammability	1	
Toxicity	2	
Body Contact	2	
Reactivity	1	
Chronic	2	

SCALE: Min/Nil=0 Low=1 Moderate=2 High=3 Extreme=4

POTENTIAL HEALTH EFFECTS

ACUTE HEALTH EFFECTS

SWALLOWED

The material has NOT been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence. The material may still be dangerous.

EYE

There is some evidence to suggest that this material can cause eye irritation and damage in some persons.

SKIN

The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be limited. Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is treated.

INHALED

Inhalation of dusts, generated by the material during the course of normal handling, may be damaging to the health of the individual. Effects on lungs are significantly enhanced in the presence of respirable particles.

CHRONIC HEALTH EFFECTS

Overexposure to respirable dust may cause coughing, wheezing, difficulty in breathing and impaired lung function. Chronic symptoms may include decreased vital lung capacity, chest infections. Repeated exposures, in an occupational setting, to high levels of fine-divided dusts may produce a condition known as pneumoconiosis which is the lodgement of any inhaled dusts in the lung irrespective of the effect. Removing workers from possibility of further exposure to dust generally leads to halting the progress of the lung abnormalities. Where worker-exposure potential is high, periodic examinations with emphasis on lung capacity should be carried out. Dust inhalation over an extended number of years may produce pneumoconiosis. Pneumoconiosis is the accumulation of dusts in the lungs and the tissue reaction in its presence. It is further classified as being of no concern, simple, or complicated. Substance accumulation, in the human body, may occur and may cause some concern following repeated or long-term occupational exposure. There has been some concern that this material can cause cancer or mutations but there is not enough data to make an assessment. There is insufficient evidence to suggest that exposure to carbon black causes increased susceptibility to cancer or other ill effects. Some lung changes can occur after a prolonged period of exposure as well as increased susceptibility to cancer or other ill effects.

TOXICITY AND IRRITATION

Not available. Refer to individual constituents.

CARBON, STEAM ACTIVATED - NOT REGULATED:

unless otherwise specified data extracted from RTECS - Register of Toxic Effects of Chemical Substances.

No data of toxicological significance identified in literature search.

CARCINOGEN

Carbon black	International Agency for Research on Cancer (IARC)	Group	2B
Carbon black	Agents Reviewed by the IARC Monographs US ACGIH Threshold Limit Values (TLV)	Carcinogen Category	A4
CARBON BLACK	Environmental Defense Scorecard Recognized Carcinogens US	Reference (s)	P65
CARBON BLACK	Environmental Defense Scorecard Suspected Carcinogens US NIOSH	Reference (s)	P65

Carbon black	Recommended Exposure Limits (RELS) - Carcinogens	Carcinogen	Ca
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Section 12 - ECOLOGICAL INFORMATION

Refer to data for ingredients, which follows:

CARBON, STEAM ACTIVATED - NOT REGULATED:

ACTIVATED CARBON:

DO NOT discharge into sewer or waterways.

ACTIVATED CARBON:

CARBON, STEAM ACTIVATED - NOT REGULATED:

Section 13 - DISPOSAL CONSIDERATIONS

· Recycle where possible

Otherwise ensure that:

· licenced contractors dispose of the product and its container.

· disposal occurs at a licenced facility.

Section 14 - TRANSPORTATION INFORMATION

NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS: DOT, IATA, IMDG

Section 15 - REGULATORY INFORMATION

REGULATIONS

Regulations for ingredients

carbon, steam activated - not regulated (CAS: 7440-44-0) is found on the following regulatory lists;

"Canada - Yukon Permissible Concentrations for Airborne Contaminant Substances", "Canada Domestic Substances List (DSL)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (English)", "Canada Toxicological Index Service - Workplace Hazardous Materials Information System - WHMIS (French)", "International Air Transport Association (IATA) Dangerous Goods Regulations", "International Air Transport Association (IATA) Dangerous Goods Regulations - Prohibited List", "OECD Representative List of High Production Volume (HPV) Chemicals", "US - Idaho - Toxic and Hazardous Substances - Mineral Dust", "US - Minnesota Hazardous Substance List", "US - Minnesota Permissible Exposure Limits (PELs)", "US - Pennsylvania - Hazardous Substance List", "US - Rhode Island Hazardous Substance List", "US - Vermont Permissible Exposure Limits Table Z-1-A Final Rule Limits for Air Contaminants", "US DOE Temporary Emergency Exposure Limits (TEELs)", "US EPA High Production Volume Program Chemical List", "US FDA CFSAN Color Additive Status List 4", "US FDA CFSAN Color Additive Status List 6", "US Postal Service (USPS) Hazardous Materials Table: Postal Service Mailability Guide", "US Toxic Substances Control Act (TSCA) - Inventory", "US TSCA Section 8 (a) Inventory Update Rule (IUR) - Partial Exemptions"

No data for Activated Carbon (CW: 4658-37)

Section 16 - OTHER INFORMATION

EXPOSURE STANDARD FOR MIXTURES

"Worst Case" computer-aided prediction of spray/ mist or fume/ dust components and concentration:

Composite Exposure Standard for Mixture (TWA) :3 mg/m³.

Operations which produce a spray/mist or fume/dust, introduce particulates to the breathing zone.

If the breathing zone concentration of ANY of the components listed below is exceeded, "Worst Case" considerations deem the individual to be overexposed.

Component Breathing Zone ppm Breathing Zone mg/m³ Mixture Conc (%)

Component Mixture Conc (%)	Breathing zone (ppm) carbon, steam activated -	Breathing zone (mg/m ³) not reg
3.0000	100.0	

CONTACT

Mars Fishcare

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

A list of reference resources used to assist the committee may be found at:

www.chemwatch.net/references.

The (M)SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following U.S. Regulations and Standards:

OSHA Standards - 29 CFR:

1910.132 - Personal Protective Equipment - General requirements

1910.133 - Eye and face protection

1910.134 - Respiratory Protection

1910.136 - Occupational foot protection

1910.138 - Hand Protection

Eye and face protection - ANSI Z87.1

Foot protection - ANSI Z41

Respirators must be NIOSH approved.

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