

TIGG HP
MATERIAL SAFETY DATA SHEET

SECTION I. IDENTIFICATION

SUPPLIERS NAME: TIGG CORPORATION
 EMERGENCY TELEPHONE: (724) 703-3020
 ADDRESS: 1 WILLOW AVENUE; OAKDALE, PA 15071
 CHEMICAL NAME AND SYNONYMS: CARBON IMPREGNATED WITH PHOSPHORIC ACID
 FORMULA: CH₃PO₄

SECTION II. INGREDIENTS/SUMMARY OF HAZARDS

ACTIVATED CARBON	CAS #:	7440-44-0
	% BY WEIGHT:	78-73%
	ORAL LD ₅₀ :	>10g/Kg (RAT)
	TLV:	ACGIH: N/A OSHA: N/A OTHER: N/A
PHOSPORIC ACID	CAS#:	7664-38-2
	%BY WEIGHT:	7-12%
	ORAL LD ₅₀ :	2740mg/KG (RABBIT)
	TLV:	ACGIH: 1mg/M ³ OSHA: N/A OTHER: N/A

WARNING STATEMENTS:

CAUTION! WET ACTIVATED CARBON REMOVES OXYGEN FROM AIR CAUSING A SEVERE HAZARD TO WORKERS INSIDE CARBON VESSELS AND ENCLOSED OR CONFINED SPACES. BEFORE ENTERING SUCH AN AREA, SAMPLING AND WORK PROCEDURES FOR LOW OXYGEN LEVELS SHOULD BE TAKEN TO ENSURE AMPLE OXYGEN AVAILABILITY, OBSERVING ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
 SEE SECTION VI FOR COMPLETE HEALTH HAZARD DATA
 NATIONAL FIRE PROTECTION ASSOCIATION RATING HAZARDOUS MATERIALS IDENTIFICATION SYSTEM

KEY	NFPA	HMIS
= NFPA/HMIS		
4 = EXTREME/SEVERE	HEALTH	
3 = HIGH/SERIOUS		
2 = MODERATE	FIRE	
1 = SLIGHT		
0 = MINIMUM	REACTIVITY	

SARA TITLE III HAZARD CLASSIFICATION

IMMEDIATE (ACUTE) HEALTH
 DELAYED (CHRONIC) HEALTH
 FIRE
 SUDDEN RELEASE OFPRESSURE

REACTIVE

SECTION III. PHYSICAL DATA

BOILING POINT (°F)	266-316
VAPOR PRESSURE (mmHg)	0.03 @ 20°C
VAPOR DENSITY (AIR =1)	NON-VOLATILE
SOLUBILITY IN WATER:	10%
SPECIFIC GRAVITY (H ₂ O = 1)	2.1 (Active Carbon); 1.5-1.7 (Phosphoric Acid Component)
PERCENT VOLATILE BY VOLUME (%)	9.75% AS WATER VAPOR
pH (AQUEOUS SOLUTIONS):	1.5
BULK DENSITY:	0.6-0.7 g/cc
APPEARANCE AND ODOR:	BLACK PARTICULATE SOLID

FOR ADDITIONAL TECHNICAL INFORMATION, CALL (724) 703-3020

SECTION IV. FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (°C):	N/A
FLAMMABLE LIMITS IN AIR:	N/A
AUTOIGNITION TEMPERATURE (°C):	
EXTINGUISHING MEDIA:	FLOOD WITH WATER. IF WATER IS UNAVAILABLE, NITROGEN OR FOAM MAY BE USED TO BLANKET THE ADSORBENT BED. IF THE MATERIAL IS IN A CLOSED VESSEL, A BOTTOM INLET MAY BE BLOCKED TO DEPRIVE THE FIRE OF OXYGEN, BUT THE VESSEL SHOULD REMAIN VENTED FOR RELEASING STEAM OR OTHER HOT GASES.
SPECIAL FIRE FIGHTING PROCEDURES:	WEAR PROTECTIVE CLOTHING, SELF CONTAINED BREATHING APPARATUS IF NECESSARY. THERMAL DECOMPOSITION EMITS TOXIC FUMES IN THE FORM OF PHOSPHOROUS OXIDES.
UNUSUAL FIRE AND EXPLOSION HAZARDS:	FLOODING THE VESSEL WITH WATER WILL EXTINGUISH ANY HOT ZONES. COPIOUS VOLUMES OF STEAM MAY BE GENERATED IN THE PROCESS OF EXTINGUISHING THE HOT ZONES. STEAM GENERATION IS REDUCED WHEN FLOODING OCCURS FROM THE BOTTOM UP, AS COMBUSTIBLE MATERIAL IN CONTACT WITH IT WILL. AT TEMPERATURES AROUND 900°C, CARBON CAN REACT WITH FIRE-FIGHTING MATERIALS SUCH AS WATER OR CARBON DIOXIDE TO FORM HYDROGEN AND/OR CARBON MONOXIDE WHICH COULD REACH LEVELS HAZARDOUS TO RESPIRATION OR REPRESENTING A COMBUSTIBLE OFF-GAS.

SECTION V. REACTIVITY DATA

STABILITY: STABLE

CONDITIONS TO AVOID: NONE

MATERIALS TO AVOID: CONCENTRATION OF DECOMPOSABLE ORGANICS SUCH AS KETONES, ALDEHYDES, AND OXIDANTS SUCH AS OZONE, CHLORINE, OXYGEN LEVELS RICHER THAN AIR.

HAZARDOUS DECOMPOSITION PRODUCTS: CO, PHOSPHORUS OXIDE FUMES MAY BE GENERATED ON COMBUSTION. AFTER ADSORBENT HAS BEEN IN USE, REACTION PRODUCTS OF PHOSPHORIC ACID AND ADSORBED SUBSTANCES MAY BE ENCOUNTERED.

HAZARDOUS POLYMERIZATION: NO

SECTION VI. HEALTH HAZARD DATA/FIRST AID PROCEDURES

GENERAL INFORMATION:

EXPOSURE LIMITS: ACGIH TLV: N/A
OSHA PEL: N/A

TOXICOLOGY DATA: ORAL LD50 (RATS): >10g/Kg
DERMAL LD50 (RABBITS):
INHALATION LC50 (RATS): >64.4 MG/L
SKIN EFFECTS (RABBITS):
EYE EFFECTS (RABBITS):

CONCINOGENICITY:

EFFECTS OF SINGLE EXPOSURE: SWALLOWING:
SKIN ABSORPTION:
INHALATION:
SKIN CONTACT:
EYE CONTACT:

EFFECTS OF REPEATED EXPOSURE:

OTHER EFFECTS OF EXPOSURE:

EXISTING MEDICAL CONDITIONS POSSIBLY AGGRAVATED BY EXPOSURE:

EMERGENCY FIRST AID PROCEDURE: SWALLOWING: RINSE MOUTH WITH H₂O, GIVE COPIOUS AMOUNTS OF WATER TO CAUSE DILUTION IN STOMACH, DO NOT INDUCE VOMITING.
SKIN: FLUSH WITH WATER.
INHALATION: REMOVE FROM EXPOSURE, IF BREATHING DIFFICULTY OR DISCOMFORT PERSISTS, OBTAIN MEDICAL ATTENTION.
EYES: FLUSH WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. GET PROMPT MEDICAL ASSISTANCE IF IRRITATION PERSISTS.

NOTES TO PHYSICIAN:

SECTION VII. PRECAUTIONS FOR SAFE HANDLING OR USE

CAUTION! WET ACTIVATED CARBON REMOVES OXYGEN FROM AIR CAUSING A SEVER HAZARD TO WORKERS INSIDE CARBON VESSELS AND ENCLOSED OR CONFINED SPACES. BEFORE ENTERING SUCH AN AREA, SAMPLING AND WORK PROCEDURES FOR LOW OXYGEN LEVELS SHOULD BE TAKEN TO ENSURE AMPLE OXYGEN AVAILABILITY, OBSERVING ALL LOCAL, STATE, AND FEDERAL REGULATIONS.

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:	SWEEP UP UNUSED CARBON AND DISCARD IN REFUSE CONTAINER, OR REPACKAGE.
WASTE DISPOSAL METHOD:	DISPOSE OF UNUSED CARBON IN REFUSE CONTAINER, DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:	WASH THOROUGHLY AFTER HANDLING. EXERCISE CAUTION IN THE STORAGE AND HANDLING OF ALL CHEMICAL SUBSTANCES. FINES GENERATED BY ATTRITION DURING HANDLING OF THE PRODUCT GENERALLY CONTAIN A HIGHER LEVEL OF IMPREGNANT THAN THE BULK PRODUCT.

SECTION VIII. SPECIAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT SHOULD BE USED DURING THE FOLLOWING PROCEDURES:

RESPIRATORY PROTECTION:	A NIOSH APPROVED PARTICULATE FILTER RESPIRATOR IS RECOMMENDED IF EXCESSIVE DUST IS GENERATED.
VENTILATION:	LOCAL: RECOMMENDED MECHANICAL: RECOMMENDED
PROTECTIVE CLOTHING:	RUBBER OR NEOPRENE GLOVES RECOMMENDED
EYE PROTECTION:	SAFETY GLASSES OR GOGGLES RECOMMENDED

SECTION IX. REGULATORY STATUS

TSCA INVENTORY:	
TRANSPORTATION STATUS:	
SARA TITLE III	SECTION 302 EXTREMELY HAZARDOUS SUBSTANCE LIST: SECTION 313 TOXIC CHEMICALS:
REPORTABLE QUANTITY (RQ), UNDER U.S. EPA CERCLA:	N/A
FEDERAL RCRA HAZARDOUS WASTE:	
STATES RIGHT-TO-KNOW LAWS:	

SECTION X. REFERENCES

NONE

SECTION XI. DATE

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While this information and recommendations set forth herein are believed to be accurate as to the date hereof, TIGG Corporation makes no warranty with respect hereto and disclaims all liability from reliance thereon.

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