



TEICHERT AGGREGATES

P.O. BOX 15002
SACRAMENTO, CALIFORNIA 95851

MATERIAL SAFETY DATA SHEET

EFFECTIVE DATE: FEBRUARY 2004

I. IDENTIFICATION

| | | | |
|------------------------------|--------------------------------------|-------------------|-------------|
| PRODUCT NAME: | ILMENITE | | |
| CHEMICAL NAME: | ILMENITE, IRON TITANIUM OXIDE | CHEMICAL FAMILY: | N/A |
| FORMULA: | FeTiO ₃ | MOLECULAR WEIGHT: | N/A |
| SYNONYMS: | BLACK SAND | | |
| DEPARTMENT OF TRANSPORTATION | HAZARD CLASSIFICATION | N/A | |
| | SHIPPING NAME | N/A | |
| MANUFACTURER'S NAME | TEICHERT AGGREGATES | | |
| ADDRESS: | P.O. BOX 15002, SACRAMENTO, CA 95851 | | |
| TELEPHONE NUMBER: | (916) 484-3011 | DATE REVISED: | AUGUST 2003 |

II. PHYSICAL PROPERTIES

| | | | |
|---|---|-------------------------------|-----|
| BOILING POINT, 760 mm. Hg | N/A | FREEZING POINT | N/A |
| SPECIFIC GRAVITY (H ₂ O = 1) | 4.5 - 5.0 | VAPOR PRESSURE | N/A |
| VAPOR DENSITY (air = 1) | N/A | SOLUBILITY IN WATER, % BY WT. | NIL |
| APPEARANCE AND ODOR | FINE, BLACK, ORDORLESS PARTICULATE WITH METALLIC LUSTER | | |

III. HAZARDOUS INGREDIENTS

| MATERIAL | % | PEL (units) | TLV (units) | CAS NUMBER |
|----------|---|-----------------------|-----------------------|------------|
| ILMENITE | | 10 mg/m ^{3*} | 10 mg/m ^{3*} | 12168-52-4 |
| | | 5 mg/m ^{3**} | 3 mg/m ^{3**} | |

*TOTAL PARTICULATES (NOT OTHERWISE REGULATED) **RESPIRABLE PARTICULATES (NOT OTHERWISE REGULATED)

IV. FIRE AND EXPLOSION HAZARD DATA

| | | | | |
|--------------------------------------|---|-----|-------------|-----|
| FLASH POINT (test method) | N/A | | | |
| FLAMMABLE LIMITS IN AIR, % by volume | LOWER (LEL) | N/E | UPPER (UEL) | N/E |
| EXTINGUISHING MEDIA | N/E | | | |
| SPECIAL FIRE FIGHTING PROCEDURES | N/E | | | |
| UNUSUAL FIRE AND EXPLOSION HAZARDS | PRODUCT IS NON-FLAMMABLE, BUT CONCENTRATED SUSPENSIONS OF FINE PARTICLES IN AIR MAY BE IGNITABLE/EXPLOSIVE. | | | |

EMERGENCY PHONE NUMBER

N/A = not applicable

(800) 287-7383

N/E = not established

V. HEALTH HAZARD INFORMATION

EFFECTS OF ACUTE OVEREXPOSURE

| | |
|-------------------------|---|
| SWALLOWING | NO SIGNIFICANT HAZARD POSED UNDER NORMAL WORK CONDITIONS. |
| SKIN CONTACT | MAY CAUSE IRRITATION DUE TO ABRASIVE EFFECTS |
| INHALATION | SHORT TERM EFFECTS OF INHALATION OF HIGH CONCENTRATIONS (VISIBLE DUST) ARE IDENTICAL TO THOSE FROM "NUISANCE" DUSTS, E.G., TRANSIENT IRRITATION AND COUGHING. |
| EYE CONTACT | MAY CAUSE IRRITATION DUE TO ABRASIVE EFFECTS |
| ABSORPTION THROUGH SKIN | NOT APPLICABLE |

EFFECTS OF REPEATED OVEREXPOSURE

ACUTE: AIRBORNE PARTICLES CAN CAUSE EYE IRRITATION. INHALATION OF VERY HIGH LEVELS OF AIRBORNE DUST MAY PRODUCE RESPIRATORY IRRITATION AND COUGHING.

CHRONIC: NONE KNOWN

OTHER HEALTH HAZARDS

PRE-EXISTING RESPIRATORY CONDITIONS, SUCH AS BRONCHITIS, MAY BE AGGRAVATED BY INHALATION EXPOSURE.

EMERGENCY AND FIRST AID PROCEDURES

| | |
|------------|--|
| SWALLOWING | SEEK MEDICAL ADVICE, SMALL AMOUNTS NOT EXPECTED TO POSE A HEALTH HAZARD. |
| SKIN | WASH SKIN WITH WATER AND MILD SOAP. |
| INHALATION | REMOVE TO FRESH AIR. SEEK MEDICAL ATTENTION IF DISCOMFORT PERSISTS. |
| EYES | FLUSH EYES WITH LARGE AMOUNTS OF WATER. SEEK MEDICAL ATTENTION. |

SUSPECTED CANCER AGENT?

NO FEDERAL OSHA NO NTP NO IARC

VI. REACTIVITY DATA

| | | | |
|--|----------------|---|------|
| STABILITY | | CONDITION TO AVOID | NONE |
| UNSTABLE | STABLE | | |
| | X | | |
| INCOMPATIBILITY (materials to avoid) | | HYDROGEN PEROXIDE, ALUMINUM, OR MAGNESIUM POWDERS | |
| HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS | | METAL OXIDE FUMES. | |
| HAZARDOUS POLYMERIZATION | | CONDITION TO AVOID | NONE |
| May Occur | Will Not Occur | | |
| | X | | |

| VII. SPILL OR LEAK PROCEDURES | |
|---|--|
| STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED | MATERIAL DOES NOT POSE IMMINENT HAZARD TO WORKERS OR THE ENVIRONMENT. TRANSFER SPILLED MATERIAL TO CONTAINERS FOR REUSE OR DISPOSAL WITH NORMAL TRASH. USE GOOD HYGIENE PRACTICES TO MINIMIZE EXPOSURE (WEAR SKIN AND EYE PROTECTION, AS NECESSARY). |
| WASTE DISPOSAL METHOD | PRODUCT IS NOT CLASSIFIED AS HAZARDOUS WASTE. |
| VIII. SPECIAL PROTECTION INFORMATION | |
| RESPIRATORY PROTECTION (specific type) | IF AIRBORNE CONCENTRATIONS EXCEED CAL/OSHA PERMISSIBLE EXPOSURE LIMITS FOR NUISANCE DUSTS, WEAR NIOSH-APPROVED PARTICULATE-FILTERING RESPIRATORS FOR PROTECTION. |
| VENTILATION | PROVIDE SUFFICIENT VENTILATION IN CONFINED SPACES TO PREVENT SUSTAINED SUSPENSIONS OF PARTICULATES IN AIR. |
| PROTECTIVE GLOVES | TRANSITORY SKIN CONTACT POSES NO HAZARD. AVOID PROLONGED OR REPEATED CONTACT WITH PRODUCT. |
| EYE PROTECTION | AVOID EYE CONTACT; WEAR SAFETY GLASSES OR GOGGLES, AS NEEDED. |
| OTHER PROTECTIVE EQUIPMENT | COVERALLS OR OTHER WORK CLOTHING THAT MINIMIZES SKIN CONTACT WITH PRODUCT. USE WORK PRACTICES THAT MINIMIZE ROUTINE SKIN AND EYE CONTACT. USE GOOD HYGIENE PRACTICES (E.G., WASH EXPOSED SKIN WITH SOAP AND WATER; LAUNDER CONTAMINATED CLOTHING). |
| IX. SPECIAL PRECAUTIONS | |
| PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: NONE | |
| OTHER PRECAUTIONS: NONE | |
| X. ADDITIONAL INFORMATION | |
| NONE | |

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