



SAFFIRE BLUE *inc.*

MATERIAL SAFETY DATA SHEET

PRODUCT/MATERIAL: RED IRON OXIDE

MANUFACTURER/DISTRIBUTOR: Saffire Blue inc.
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Tillsonburg, ON N4G4G9
Canada

TELEPHONE NUMBER:

SECTION I - PRODUCT IDENTIFICATION

TRADE NAME	RED IRON OXIDE
CHEMICAL NAME	FERRIC OXIDE
CHEMICAL FORMULA	Fe_2O_3 and Fe_3O_4
COLOUR INDEX	PIGMENT RED 101:77491
CAS NUMBER	1309-37-1 or 1332-37-2
EINECS NUMBER	2151682
HMIS RATING	HEALTH 0 FLAMMABILITY 0 REACTIVITY 0

SECTION II - COMPOSITION

INGREDIENT NAME	CAS NUMBER	PERCENT	EXPOSURE LIMITS
IRON OXIDE RED	1309-37-1 (1332-37-2)	>92	ACGIH TLV: 5 mg/m ³ (Iron Oxide Fume) OSHA STEL: 10 ppm (Iron Oxide Fume as Fe)
IRON OXIDE BLACK	1317-61-9	<8	ACGIH TLV: 5 mg/m ³ TWA (Iron Oxide Fume) OSHA STEL: 10 ppm (Iron Oxide Fume as Fe)

SECTION III - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: NO UNUSUAL FIRE OR SPILL HAZARD. LOW HEALTH RISK BY INHALATION.

POTENTIAL HEALTH EFFECTS: EYES - MAY CAUSE MECHANICAL IRRITATION.
SKIN - NONE
INHALATION - LOW HEALTH RISK BY INHALATION. TREAT AS A NUISANCE DUST.
ORAL LD₅₀-GREATER THAN 10 g/kg (RAT)

EFFECTS OF OVEREXPOSURE: ACUTE - CAUSES MECHANICAL SKIN AND EYE IRRITATION.
CHRONIC - PROLONGED INHALATION OF IRON OXIDE DUST IS KNOWN TO PRODUCE A CONDITION KNOWN AS SIDEROSIS. ON X-RAYS IT APPEARS TO BE A BENIGN PNEUMOCONIOSIS AND IS NOT ASSOCIATED WITH PULMONARY FIBROSIS OR DISABILITY UNLESS THERE IS CONCURRENT EXPOSURE TO OTHER FIBROSIS-PRODUCING MATERIALS SUCH AS SILICA. THE TLV IS SET TO PROTECT AGAINST SIDEROSIS.

CARCINOGENICITY: NOT LISTED WITH NTP, IARC, OR OSHA AS A KNOWN OR SUSPECTED CARCINOGEN.

SECTION IV - FIRST AID MEASURES

EYES: FLUSH EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES. CONSULT A PHYSICIAN IF IRRITATION PERSISTS.
SKIN: WASH WITH SOAP AND WATER.
INHALATION: REMOVE TO FRESH AIR. IF BREATHING IS LABORED OR STOPPED, GIVE ARTIFICIAL RESPIRATION. GET IMMEDIATE



MEDICAL ATTENTION.

INGESTION: IF SWALLOWED, DILUTE WITH LARGE AMOUNTS OF WATER TO INDUCE VOMITING. CONSULT A PHYSICIAN.

SECTION V - FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES: NON-FLAMMABLE

FLASH POINT - NONE

FLAMMABLE LIMITS - NOT APPLICABLE

AUTO-IGNITION TEMPERATURE - NOT APPLICABLE

HAZARDOUS COMBUSTION PRODUCTS: NONE

EXTINGUISHING MEDIA: USE EXTINGUISHING AGENT APPLICABLE TO SURROUNDING FIRE.

FIRE FIGHTING INSTRUCTIONS: FIRE FIGHTERS SHOULD WEAR NIOSH APPROVED, POSITIVE PRESSURE, SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING WHEN APPROPRIATE.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SMALL/LARGE SPILL: CLEAN UP USING DRY PROCEDURES; AVOID DUSTING.

SECTION VII - HANDLING AND STORAGE

HANDLING: GOOD INDUSTRIAL HYGIENE PRACTICE REQUIRES THAT EMPLOYEE EXPOSURE BE MAINTAINED BELOW TLV. THIS IS PREFERABLY ACHIEVED THROUGH THE PROVISION OF ADEQUATE VENTILATION WHERE NECESSARY. WHERE DUST CANNOT BE CONTROLLED IN THIS WAY, PERSONAL RESPIRATORY PROTECTION SHOULD BE EMPLOYED.

STORAGE: STORE IN A CLEAN, DRY AREA AT AMBIENT TEMPERATURE IN ORIGINAL UNOPENED CONTAINERS. CONDITIONS OF HIGH HUMIDITY MAY REQUIRE STORAGE IN A CONTROLLED ENVIRONMENT.

SECTION VIII - EXPOSURE CONTROLS

ENGINEERING CONTROLS: USE WITH ADEQUATE VENTILATION TO MEET EXPOSURE LIMITS LISTED IN SECTION II.

RESPIRATORY PROTECTION: NIOSH APPROVED DUST RESPIRATOR IF OVEREXPOSURE POTENTIAL EXISTS.

SKIN PROTECTION: LEATHER OR RUBBER GLOVES.

EYE PROTECTION: SAFETY GLASSES, GOGGLES, OR FACE SHIELD RECOMMENDED.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: RED TO REDDISH BROWN POWDER.

BOILING POINT: NOT APPLICABLE

VAPOR PRESSURE: NOT APPLICABLE

VAPOR DENSITY: NOT APPLICABLE

SOLUBILITY IN WATER: INSOLUBLE

SPECIFIC GRAVITY: 4.8 - 5.2

pH: NOT DETERMINED

ODOR: NONE

ODOR THRESHOLD: NOT APPLICABLE

SECTION X - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: NONE

INCOMPATIBILITY: IRON OXIDES ARE NOT COMPATIBLE WITH HYDRAZINE, CALCIUM HYPOCHLORITE, PERFORMIC ACID, AND BROMINE PENTAFLUORIDE.

HAZARDOUS DECOMPOSITION PRODUCTS: NONE

HAZARDOUS POLYMERIZATION: NONE



SECTION XI - TOXICOLOGICAL INFORMATION

THERE ARE NO KNOWN DANGEROUS ACUTE OR CHRONIC EFFECTS ASSOCIATED WITH THE USE OF THIS MATERIAL. THE ACUTE ORAL TOXICITY LD₅₀ ORAL (RAT) FOR Fe₂O₃ IS GREATER THAN 10 g/kg (RAT).

THIS PRODUCT IS NOT CONSIDERED TO BE A KNOWN OR SUSPECTED CARCINOGEN BY NTP, IARC, OR OSHA.

SECTION XII - ECOLOGICAL INFORMATION

NO HARMFUL EFFECTS KNOWN OTHER THAN THOSE ASSOCIATED WITH SUSPENDED INERT SOLIDS IN WATER.

SECTION XIII - DISPOSAL CONSIDERATIONS

COLLECT IN CONTAINERS, BAGS, OR COVERED DUMPSTER BOXES. IF REUSE OR RECYCLING IS NOT POSSIBLE, MATERIAL MAY BE DISPOSED OF AT A CHEMICALLY SECURE LANDFILL.

RCRA HAZARDOUS WASTE NUMBER: NOT FEDERALLY REGULATED.

SECTION XIV - TRANSPORTATION INFORMATION

U.S. DOT: NOT REGULATED - ENTER THE PROPER FREIGHT CLASSIFICATION ON THE SHIPPING PAPERWORK, "MSDS NUMBER", AND "PRODUCT NAME" FOR SHIPPING PURPOSES.

CANADIAN TDG HAZARD CLASS & PIN: NOT REGULATED.

SECTION XV - REGULATORY INFORMATION

HARMONIZED TARIFF CODE: 2821.10.00

TSCA STATUS: COMPONENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

CERCLA REPORTABLE QUANTITY: NONE

RCRA (40 CFR 261): DISCARDED IRON OXIDE IS NOT CLASSIFIED AS A HAZARDOUS WASTE.

SARA TITLE III

SECTION 311/312 HAZARDOUS CATEGORIES: NONE

SECTION 313 TOXIC CHEMICALS: NONE

INTERNATIONAL REGULATIONS:

CANADIAN DSL - COMPONENTS ARE LISTED.

CANADIAN WHMIS - THIS MATERIAL IS NOT A CONTROLLED SUBSTANCE UNDER WHMIS.

EUROPEAN COMMUNITY - LISTED ON ECHOIN, THE EUROPEAN CORE INVENTORY.

CALIFORNIA PROPOSITION 65: THERE ARE EXTREMELY SMALL, BUT DETECTABLE AMOUNTS OF SUBSTANCES REGULATED UNDER CALIFORNIA'S SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT.

ARSENIC	LESS THAN 2 ppm
BERYLLIUM	LESS THAN 2 ppm
CADMIUM	LESS THAN 2 ppm
CHROMIUM (VI)	LESS THAN 0.1 ppm
LEAD	LESS THAN 10 ppm

THESE LEVELS ARE "TYPICAL" QUANTITIES AND MAY CHANGE SLIGHTLY WITH DIFFERENT LOTS. THE TERM "LESS THAN" INDICATES THAT THE SUBSTANCE WAS DETECTED, BUT THE AMOUNT WAS LESS THAN THE QUANTIFIABLE LIMIT.

SECTION XVI - OTHER INFORMATION

THE INFORMATION HEREIN IS GIVEN IN GOOD FAITH AS AUTHORITATIVE AND VALID; HOWEVER, NO WARRANTY, EXPRESSED OR IMPLIED, CAN BE MADE.