

# SAFETY DATA SHEET

FLAME CONTROL NO. 1212 01 BLACK

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## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

**TRADE NAME:** FLAME CONTROL NO. 1212 01 BLACK

**CHEMICAL FAMILY:** SILICONE, AROMATIC SOLVENT

**MAIN USE:** INDUSTRIAL HI-HEAT® COATING

**MANUFACTURER'S NAME / ADDRESS:** FLAME CONTROL COATINGS LLC  
4120 HYDE PARK BLVD.  
NIAGARA FALLS, N.Y. 14305

**EMERGENCY TELEPHONE NUMBER:** 800-535-5053

**ISSUE DATE:** MAY 6, 2016

**REVISION DATE:**

**PREPARED BY:** P. PISARSKI

## SECTION 2: HAZARDS IDENTIFICATION

**CLASSIFICATION:** BLACK PIGMENTED LIQUID, AROMATIC SOLVENT ODOR

**IMPORTANT HAZARDS:**

FLAMMABLE LIQUID- CATEGORY 2  
SKIN CORROSION/IRRITATION- CATEGORY 2  
SERIOUS EYE DAMAGE/EYE IRRITATION- CATEGORY 2A  
CARCINOGENICITY- CATEGORY 2B  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(RESPIRATORY TRACT IRRITATION)- CATEGORY 3  
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)  
(NARCOTIC EFFECTS)- CATEGORY 3  
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)- CATEGORY 1  
ASPIRATION HAZARD- CATEGORY 1

**GHS LABEL ELEMENTS HAZARD PICTOGRAMS:**



**EMERGENCY OVERVIEW:** DANGER!  
FLAMMABLE LIQUID AND VAPOR  
HARMFUL OR FATAL IF SWALLOWED  
HARMFUL IF INHALED  
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION  
CONTAINS MATERIAL WHICH CAUSES DAMAGE TO THE FOLLOWING  
ORGANS: BLOOD, KIDNEYS, LIVER, GASTROINTESTINAL TRACT,  
RESPIRATORY TRACT, SKIN, NERVOUS SYSTEM, EYE, LENSE OR CORNEA  
VAPOR MAY CAUSE FLASH FIRE  
MAY BE HARMFUL IF ABSORBED THROUGH SKIN  
POSSIBLE CANCER HAZARD  
CONTAINS MATERIAL WHICH CAN CAUSE CANCER

**PRIMARY ROUTES OF ENTRY:** EYE CONTACT, SKIN CONTACT, INHALATION, INGESTION

**HEALTH HAZARDS (ACUTE AND CHRONIC EXPOSURES)**

**EYES:**

**ACUTE** – LIQUID, AEROSOLS OR VAPORS ARE SEVERELY IRRITATING AND CAN CAUSE PAIN, TEARING, REDDENING AND SWELLING. IF LEFT UNTREATED, CORNEAL DAMAGE CAN OCCUR AND INJURY IS SLOW TO HEAL. HOWEVER, DAMAGE IS USUALLY REVERSIBLE.

**CHRONIC** – PROLONGED VAPOR CONTACT MAY CAUSE CONJUNCTIVITIS.

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## SECTION 2: HAZARDS IDENTIFICATION (CON'T)

### SKIN CONTACT:

**ACUTE** – REPEATED OR PROLONGED SKIN CONTACT CAN RESULT IN DRY, DEFATTED AND CRACKED SKIN CAUSING INCREASED SUSCEPTIBILITY TO INFECTION. IN ADDITION IRRITATION MAY DEVELOP INTO DERMATITIS. SOLVENTS CAN PENETRATE THE SKIN AND MAY CAUSE EFFECTS SIMILAR TO THOSE IDENTIFIED UNDER ACUTE INHALATION SYMPTOMS.

**CHRONIC** – MAY CAUSE EFFECTS SIMILAR TO THOSE IDENTIFIED UNDER CHRONIC INHALATION EFFECTS.

### SKIN ABSORPTION:

**ACUTE** – ND

**CHRONIC** – ND

### INHALATION:

**ACUTE** – SOLVENT VAPORS ARE IRRITATING TO THE EYES, NOSE, AND THROAT. SYMPTOMS OF IRRITATION MAY INCLUDE RED, ITCHY EYES, DRYNESS OF THE THROAT AND A FEELING OF TIGHTNESS IN THE CHEST. OTHER POSSIBLE SYMPTOMS OF OVEREXPOSURE INCLUDE: HEADACHE, DIZZINESS, NAUSEA, NARCOSIS FATIGUE AND LOSS OF APPETITE.

**CHRONIC** – CHRONIC EXPOSURE TO ORGANIC SOLVENTS HAS BEEN ASSOCIATED WITH VARIOUS NEUROTOXIC EFFECTS INCLUDING PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. SYMPTOMS INCLUDE LOSS OF MEMORY, LOSS OF INTELLECTUAL ABILITY AND LOSS OF COORDINATION. TOLUENE HAS BEEN DEMONSTRATED TO BE EMBRYO/FETOTOXIC AND TERATOGENIC IN LABORATORY ANIMALS. PROLONGED OR REPEATED OVEREXPOSURE TO TOLUENE CAN CAUSE IRRITATION TO THE RESPIRATORY TRACT, ENLARGED LIVER, KIDNEY EFFECTS AND CARDIAC SENSITIZATION.

### INGESTION:

**ACUTE** – CAN RESULT IN IRRITATION OF THE DIGESTIVE TRACT. SYMPTOMS CAN INCLUDE SORE THROAT ABDOMINAL PAIN NAUSEA, VOMITING AND DIARRHEA. VOMITING MAY CAUSE ASPIRATION OF SOLVENT RESULTING IN CHEMICAL PNEUMONITIS

**CHRONIC** – ND

**CONDITIONS AGGRAVATED BY EXPOSURE:** SKIN DISORDERS AND ALLERGIES

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**SUBSTANCE/MIXTURE:** MIXTURE

**OTHER MEANS OF IDENTIFICATION:** NOT AVAILABLE

<u>HAZARDOUS INGREDIENTS</u>	<u>Wt. %</u>	<u>CAS Number</u>
TERTIARY BUTYL ACETATE	10-30	000540-88-5
LIGHT AROMATIC SOLVENT NAPHTHA	10-30	064742-95-6
1,2,4 TRIMETHYL BENZENE*	5-10	000095-63-6
1,3,5 TRIMETHYL BENZENE*	0.1-1.0	000108-67-8
DIETHYL BENZENE*	0.1-1.0	025340-17-4
CUMENE*	0.1-1.0	000098-82-8
XYLENE*	0.1-1.0	001330-20-7
CERAMIC FRITS	10-30	065997-18-4
COPPER CHROMITE BLACK SPINEL**	7-15	068186-91-4
VM&P NAPHTHA	1-5	064742-89-8
TOLUENE	1-5	000108-88-3
FLUX CALCINED DIATOMACEOUS EARTH***	1-5	068855-54-9
* CRYSTOBALITE		014464-46-1
* QUARTZ		014808-60-7

\* COMPONENTS PRESENT WITHIN ABOVE

\*\* This product is the result of high temperature calcinations of the component substances. Due to its unique crystalline structure the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.

\*\*\* This product may contain up to 72.5% crystalline silica

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### SECTION 4: FIRST AID MEASURES

**GENERAL:** REMOVE PERSON FROM AFFECTED AREA AND MAKE COMFORTABLE. TREAT SYMPTOMATICALLY.

**EYES:** FLUSH WITH WATER FOR 15 MINUTES. GET MEDICAL ATTENTION.

**SKIN:** REMOVE PRODUCT AND FLUSH AFFECTED AREA WITH WATER FOR 15 MINUTES. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION.

**INHALATION:** MOVE TO FRESH AIR. GIVE ASSISTED RESPIRATION IF BREATHING HAS STOPPED OR IS LABORED (CALL A PHYSICIAN).

**INGESTION:** GIVE 3 – 4 GLASSES OF WATER OR MILK IF PERSON CONSCIOUS. **DO NOT INDUCE VOMITING!** OBTAIN MEDICAL CARE AND TREATMENT.

**NOTES TO PHYSICIAN:** ACUTE MASSIVE EXPOSURE TO TOLUENE CAN CAUSE TRANSIENT HEMATURIA AND ALBUMINURIA. CARDIAC ARRHYTHMIAS CAN OCCUR AFTER MASSIVE INHALATION.

### SECTION 5: FIRE FIGHTING MEASURES

**EXTINGUISHING MEDIA:** IGNITION MAY GIVE RISE TO A CLASS B FIRE. IN CASE OF FIRE USE: WATER FOG, CARBON DIOXIDE, DRY CHEMICAL, OR ALCOHOL FOAM.

**SPECIFIC HAZARDS ARISING FROM CHEMICAL:** FLAMABLE LIQUID AND VAPOR. IN A FIRE OR IF HEATED A PRESSURE INCREASE WILL OCCUR AND THE CONTAINER MAY BURST, WITH THE RISK OF A SUBSEQUENT EXPLOSION. VAPOR IS HEAVIER THAN AIR AND WILL SPREAD ACROSS THE GROUND.

**HAZARDOUS DECOMPOSITION PRODUCTS:** CO, CO<sub>2</sub>

**HAZARDOUS POLYMERIZATION (REACTIVITY):** WILL NOT OCCUR.

**SPECIAL FIRE FIGHTING PROCEDURES:** WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING. WATER SPRAY IS USEFUL IN COOLING FIRE-EXPOSED VESSELS AND IN DISPERSING VAPORS.

**UNUSUAL FIRE AND EXPLOSIVE HAZARDS:** MAY GENERATE TOXIC OR IRRITATING COMBUSTION PRODUCTS. SUDDEN REACTION AND FIRE MAY RESULT IF PRODUCT IS MIXED WITH AN OXIDIZING AGENT. SOLVENT VAPORS MAY BE HEAVIER THAN AIR. UNDER CONDITIONS OF STAGNANT AIR, VAPORS MAY BUILD UP AND TRAVEL ALONG THE GROUND TO AN IGNITION SOURCE.

### SECTION 6: ACCIDENTAL RELEASE MEASURES

**STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:** SHUT OFF SOURCES OF IGNITION. COVER SPILLS WITH ABSORBENT. PLACE IN METAL CONTAINERS FOR RECOVERY OR DISPOSAL. PREVENT ENTRY INTO SEWERS, STORM DRAINS, AND WATERWAYS.

### SECTION 7: HANDLING AND STORAGE

**GENERAL:** STORE IN COOL, WELL VENTILATED AREAS. KEEP AWAY FROM HEAT AND OPEN FLAMES. AVOID PROLONGED INHALATION OF HEATED VAPORS OR MISTS. AVOID PROLONGED SKIN CONTACT. USE NON-SPARKING TOOLS AND GROUNDING CABLES WHEN TRANSFERRING. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY.

**STORAGE:** AVOID TEMPERATURE EXTREMES. STORE AWAY FROM EXCESSIVE HEAT, FROM SOURCES OF IGNITION AND FROM REACTIVE MATERIALS. MATERIAL CAN BURN; LIMIT INDOOR STORAGE TO AREAS EQUIPPED WITH AUTOMATIC SPRINKLERS. STORE OUT OF DIRECT SUNLIGHT IN A COOL PLACE. KEEP CONTAINERS TIGHTLY CLOSED. GROUND ALL METAL CONTAINERS DURING STORAGE AND HANDLING.

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<b>SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION</b>
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INGREDIENTS (CAS)	<u>EXPOSURE LIMITS (ppm)</u>				OTHER
	OSHA		ACGIH		
	TWA	STEL	TWA	STEL	
000540-88-5	200	NE	200	NE	
064742-95-6*	100	NE	400	NE	
* 000095-63-6	25	NE	25	NE	
* 000108-67-8	25	NE	25	NE	
* 000098-82-8	NE	NE	NE	NE	
* 000108-67-8	50	NE	50	NE	
* 001330-20-7	100	150	100	150	
065997-18-4	2.5mg/m <sup>3</sup>	ND	2.5mg/m <sup>3</sup>	ND	(SEE NOTE 1)
068186-91-4*	NE	NE	NE	NE	
*chromium compounds (as Cr)	0.5mg/m <sup>3</sup>	ND	0.5mg/m <sup>3</sup>	ND	(SEE NOTE 1, 2)
*copper dusts and mists (as Cu)	1mg/m <sup>3</sup>	ND	1mg/m <sup>3</sup>	ND	(SEE NOTE 1, 2)
064742-89-8	200	250	200	250	
000108-88-3	100	150	100	150	
068855-54-9*	NE	NE	NE	NE	
*014464-46-1	0.025mg/m <sup>3</sup>	ND	0.025mg/m <sup>3</sup>	ND	(SEE NOTE 1)
*014808-60-7	0.025mg/m <sup>3</sup>	ND	0.025mg/m <sup>3</sup>	ND	(SEE NOTE 1)

\* CHEMICAL COMPONENTS OF MATERIAL LISTED ABOVE

**LEGEND:** (M) MAX. EXPOSURE LIMIT; (S) OCCUPATIONAL EXP. LIMIT; (R) SUPPLIERS REC. LIMIT, (+) PERCUTANEOUS RISK

NOTE 1: VALUES MEANINGFUL ONLY WHEN HARDENED PRODUCT IS ABRADED, GROUND, ETC.

NOTE 2: HAZARDOUS COMPONENTS OF PIGMENT; SEE \*\* SECTION 2 FOR DETAILS.

**ENGINEERING CONTROLS:** EXHAUST VENTILATION IS SUFFICIENT TO KEEP AIRBORNE CONCENTRATION OF THE SOLVENTS BELOW THEIR RESPECTIVE TLV'S. EXHAUST AIR MAY NEED TO BE CLEANED BY SCRUBBERS OR FILTERS TO REDUCE ENVIRONMENTAL CONTAMINATION.

**RESPIRATORY PROTECTION:** NONE REQUIRED IN ADEQUATELY VENTILATED AREAS. IF VAPOR CONCENTRATION EXCEEDS 20ppm FOR LONGER THAN 15 MINUTES, A NIOSH APPROVED RESPIRATOR FOR ORGANIC VAPORS IS RECOMMENDED.

**PROTECTIVE GLOVES:** NITRILE RUBBER.

**EYE PROTECTION:** SPLASH-PROOF GOGGLES OR CHEMICAL SAFETY GLASSES.

**OTHER PROTECTIVE EQUIPMENT:** LONG SLEEVED SHIRTS AND TROUSERS. EMERGENCY SHOWERS AND EYE WASH STATIONS SHOULD BE READILY ACCESSIBLE.

<b>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</b>
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**APPEARANCE**

**PHYSICAL STATE:** LIQUID

**COLOR:** BLACK

**ODOR:** AROMATIC SOLVENT

**pH:** NA

**MELTING POINT:** ND

**BOILING POINT:** 110.6°C (231.1°F) (TOLUENE)

**FLASHPOINT:** 4.4°C (40°F) TCC (TOLUENE)

**EVAPORATION RATE:** >1 (BUTYL ACETATE = 1)

**COEFFICIENT OF WATER/OIL DISTRIBUTION:** ND

**% VOLATILES BY VOLUME:** 67%

**FLAMMABLE LIMITS:** NOT AVAILABLE

**LOWER EXPLOSION LIMIT:** 1.2%

**UPPER EXPLOSION LIMIT:** 7.0%

**VAPOR PRESSURE:** 24 mm Hg (TOLUENE)

**VAPOR DENSITY:** 3.1 (AIR = 1)

**SPECIFIC GRAVITY:** 1.1-1.2

**SOLUBILITY IN WATER:** INSOLUBLE

**AUTO IGNITION TEMP:** 480°C (869°F)

**% SOLIDS BY WT:** 50%

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## SECTION 10: STABILITY AND REACTIVITY

**STABILITY:** STABLE; HOWEVER MAY FORM PEROXIDES OF UNKNOWN STABILITY**CONDITIONS TO AVOID:** NOT APPLICABLE (MATERIAL IS STABLE).**INCOMPATIBILITY (MATERIAL TO AVOID):** OXIDIZING AGENTS (PERCHLORATES, NITRATES), STRONG ACIDS, HYPOCHLORITES, AND PEROXIDES SHOULD NOT BE COMBINED WITH PHOSPHOROUS CONTAINING MATERIALS BECAUSE HIGHLY TOXIC FUMES CAN BE EMITTED IN A FIRE SITUATION.

## SECTION 11: TOXICOLOGICAL INFORMATION

### ACUTE TOXICITY

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	DOSE	EXPOSURE
Toluene	LD50 ORAL	RAT	<870 mg/kg	-
	LC50 INHALATION GAS	RAT	6000 ppm	6Hrs
Tertiary Butyl Acetate	LD50 ORAL	RAT	4100 mg/kg	-
	LC50 INHALATION GAS	RAT	2230mg/m <sup>3</sup>	4Hrs
Xylene	LD50 ORAL	RAT	4300 mg/kg	-
	LC50 INHALATION GAS	RAT	5000 ppm	4Hrs
Ethylbenzene	LD50 ORAL	RAT	3500 mg/kg	-
	LC50 INHALATION GAS	RAT	4000 ppm	4Hrs

### CARCINOGENICITY

PRODUCT/INGREDIENT NAME	OSHA	IARC	NTP
Toluene	POSSIBLE SELECT CARCINOGEN	3	-
Ethylbenzene	-	2B	-
Xylene	-	3	-

### SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)

PRODUCT/INGREDIENT NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
TOLUENE	CATEGORY 3	N/A	RESPIRATORY TRACT IRRITATION AND NARCOTIC EFFECTS

### SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE)

PRODUCT/INGREDIENT NAME	CATEGORY	ROUTE OF EXPOSURE	TARGET ORGANS
TOLUENE	CATEGORY 2	N/D	N/D

### POTENTIAL ACUTE HEALTH EFFECTS

**EYE:** CAUSES SERIOUS EYE IRRITATION**INHALATION:** CAN CAUSE CNS DEPRESSION, MAY CAUSE DROWSINESS AND DIZZINESS, RESPIRATORY IRRITATION**SKIN CONTACT:** CAUSES SKIN IRRITATION**INGESTION:** CAN CAUSE CNS DEPRESSION MAY BE FATAL IF SWALLOWED

### POTENTIAL CHRONIC EFFECTS

**GENERAL:** MAY CAUSE DAMAGE TO ORGANS THROUGH PROLONGED AND REPEATED EXPOSURE**TERATOGENICITY:** YES**MUTAGENICITY:** NO**EMBRYOTOXICITY:** NO

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## SECTION 12: ECOLOGICAL INFORMATION

PRODUCT/INGREDIENT NAME	RESULT	SPECIES	EXPOSURE
Tertiary Butyl Acetate	LC50 296 - 362 mg/L FRESHWATER	FRESHWATER FISH	96 Hrs
Toluene	LC50 7.3~22.8 mg/l FRESHWATER	FRESHWATER FISH	96 Hrs
Ethylbenzene	LC50 96 hr – 32-97.1 mg/L	FRESHWATER FISH	96 Hrs

## SECTION 13: DISPOSAL CONSIDERATIONS

**WASTE DISPOSAL METHODS:** INCINERATION IS PREFERRED. COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. RCRA CLASSIFIED HAZARDOUS WASTE WITH CHARACTERISTIC OF IGNITABILITY.

## SECTION 14: TRANSPORT INFORMATION

	DOT CLASSIFICATION	TDG CLASSIFICATION	MEXICO CLASSIFICATION	IATA	IMDG
<b>UN NUMBER</b>	UN1263	UN1263	UN1263	UN1263	UN1263
<b>UN PROPER SHIPPING NAME</b>	PAINT	PAINT	PAINT	PAINT	PAINT
<b>TRANSPORT HAZARD CLASS(ES)</b>	3 	3 	3 	3 	3 
<b>PACKING GROUP</b>	II	II	II	II	II
<b>ENVIRONMENTAL HAZARD</b>	NO	NO	NO	NO	NO
<b>ADDITIONAL HAZARD</b>	Special provisions Not Applicable <b>ERG No.128</b>	Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2. 18-2.19 (Class 3). <b>ERG No.128</b>	Special provisions (ERG#128) <b>ERG No.128</b>	Special provisions Not Applicable	Emergency schedules (EmS) F-E, S-E

## SECTION 15: REGULATORY INFORMATION

**MATERIAL VOC** = 242 gram/ liter

**COATING VOC** = 393 gram/liter

**TSCA (TOXIC SUBSTANCE CONTROL ACT):** ALL COMPONENTS ARE LISTED IN THE TSCA CHEMICAL SUBSTANCE INVENTORY.

**CERCLA (COMPREHENSIVE RESPONSE COMPENSATION and LIABILITY ACT):** REPORTABLE QUANTITY, TOLUENE 1000 LBS, XYLENE 100 LBS.

**SARA TITLE III**

**SECTION 312 HAZARD CLASS:** IMMEDIATE (ACUTE) HEALTH HAZARD, DELAYED HEALTH HAZARD; FIRE HAZARD

**SECTION 313 LISTED INGREDIENTS:** TOLUENE (CAS #000108-88-3), ETHYL BENZENE CAS #000100-41-4 and CAS #001333-20-7, COPPER COMPOUNDS, CHROMIUM COMPOUNDS

