

U.S. DEPARTMENT OF LABOR
Occupational Safety and Health Administration

Form Approved
OMB No. 44-R1387

MATERIAL SAFETY DATA SHEET

000148

Required under USDL Safety and Health Regulations for Ship Repairing,
Shipbuilding, and Shipbreaking (29 CFR 1915, 1916, 1917)

SECTION I	
MANUFACTURER'S NAME METROPOLITAN REFINING CO., INC.	EMERGENCY TELEPHONE NO. 212-729-7200
ADDRESS (Number, Street, City, State, and ZIP Code) 50-23 23rd ST., LONG ISLAND CITY, N. Y. 11101	
CHEMICAL NAME AND SYNONYMS BOILER WATER TREATMENT	TRADE NAME AND SYNONYMS METRO BOILING OUT COMPOUND
CHEMICAL FAMILY INORGANIC SALTS	FORMULA

SECTION II - HAZARDOUS INGREDIENTS					
PAINTS, PRESERVATIVES, & SOLVENTS	%	TLV (Units)	ALLOYS AND METALLIC COATINGS	%	TLV (Units)
PIGMENTS			BASE METAL		
CATALYST			ALLOYS		
VEHICLE			METALLIC COATINGS		
SOLVENTS			FILLER METAL PLUS COATING OR CORE FLUX		
ADDITIVES			OTHERS		
OTHERS					
HAZARDOUS MIXTURES OF OTHER LIQUIDS, SOLIDS, OR GASES				%	TLV (Units)
NONE					

SECTION III - PHYSICAL DATA			
BOILING POINT (°F.)	NA	SPECIFIC GRAVITY (H ₂ O=1)	NA
VAPOR PRESSURE (mm Hg.)	NA	PERCENT, VOLATILE BY VOLUME (%)	NA
VAPOR DENSITY (AIR=1)	NA	EVAPORATION RATE (_____ =1)	NA
SOLUBILITY IN WATER	25% Max		
APPEARANCE AND ODOR	A WHITE POWDER		

SECTION IV - FIRE AND EXPLOSION HAZARD DATA			
FLASH POINT (Method used)	NONE	FLAMMABLE LIMITS	LeI UeI
EXTINGUISHING MEDIA	WATER		
SPECIAL FIRE FIGHTING PROCEDURES			
UNUSUAL FIRE AND EXPLOSION HAZARDS			

SECTION V - HEALTH HAZARD DATA	
THRESHOLD LIMIT VALUE	UNKNOWN
EFFECTS OF OVEREXPOSURE	May cause a temporary irritation of respiratory system.
	May be slight irritant to skin - Eye irritant
EMERGENCY AND FIRST AID PROCEDURES	Skin - flush with water
	Eyes - flush with water for 15 minutes. If irritation persists, get medical attention.

SECTION VI - REACTIVITY DATA			
STABILITY	UNSTABLE		CONDITIONS TO AVOID
	STABLE	X	
INCOMPATIBILITY (Materials to avoid)			
HAZARDOUS DECOMPOSITION PRODUCTS			
HAZARDOUS POLYMERIZATION	MAY OCCUR		CONDITIONS TO AVOID
	WILL NOT OCCUR	X	

SECTION VII - SPILL OR LEAK PROCEDURES	
STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED	
FLUSH WITH WATER	
WASTE DISPOSAL METHOD	
FLUSH WITH WATER	

SECTION VIII - SPECIAL PROTECTION INFORMATION			
RESPIRATORY PROTECTION (Specify type)			
WEAR DUST RESPIRATOR			
VENTILATION	LOCAL EXHAUST		SPECIAL
	MECHANICAL (General)		OTHER
PROTECTIVE GLOVES	WEAR GLOVES	EYE PROTECTION	WEAR GOGGLES
OTHER PROTECTIVE EQUIPMENT			

SECTION IX - SPECIAL PRECAUTIONS	
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING	
NORMAL GOOD HOUSEKEEPING PRACTICES.	
OTHER PRECAUTIONS	



METROPOLITAN REFINING CO., INC.

OFFICES, PLANT AND LABORATORIES

50-23 TWENTY THIRD ST. • LONG ISLAND CITY, N. Y. 11101

METRO BOILING OUT COMPOUND

DESCRIPTION: METRO BOILING OUT COMPOUND is an alkaline cleaning compound for boiling out new boilers and removing some types of deposits.

USE: METRO BOILING OUT COMPOUND removes oil accumulation from the tube rolling operation, mill scale, welding flux, and other foreign material resulting from construction. This procedure insures a clean metal surface, preventing serious operational failure and damage due to foreign deposits.

METRO BOILING OUT COMPOUND can also be used to clean up systems that have become contaminated with oil or grease.

GENERAL	Appearance	— White free flowing powder
SPECIFICATIONS:	Odor	— None
	Density	— 60 lbs. per cu. ft.
	Solubility in water	— 1.25 lbs. per gallon at 68°F.

DOSAGE: METRO BOILING OUT COMPOUND is used at the rate of $\frac{1}{2}$ pound per boiler horsepower or 50 pounds per 1000 gallons of water in the boiler.

METHOD OF FEED:

1. Fill system with fresh water.
2. Dissolve required amount of METRO BOILING OUT COMPOUND in water at the rate of 1 pound per gallon.
3. Add solution directly to boiler through manhole or other convenient openings.
4. Remove safety valve or leave top open.
5. Heat without generating steam for 16-24 hours.
6. Blowdown periodically during the heating period.
7. Drain and flush thoroughly.

PACKAGING: Standard polyethylene lined openhead fibreboard drums.

300 lbs.

100 lbs.



THE METRO GROUP, INC.

50-23 Twenty-Third Street
Long Island City, NY 11101
(718) 729-7200
FAX: (718) 729-8677

Divisions:
Metropolitan Refining
Consolidated Water Conditioning
Cosmopolitan Chemical
Petro Con Chemical

MATERIAL SAFETY DATA SHEET

NFPA HAZARD RATING: HEALTH 3 ; FIRE 0 ; REACTIVITY 0 ; SPECIAL SCALE Corr. ; EXTREME 4 ; HIGH 3 ; MODERATE 2 ; SLIGHT 1 ; NONE 0

SECTION 1: PRODUCT NAME: METRO CLEANAWAY 221

DATE ISSUED: 8/9/93 EMERGENCY NUMBER: 1-800-424-9300 (CHEMTREC)

SECTION 2: HAZARDOUS INGREDIENTS

COMPONENTS	CAS NUMBER	OSHA PEL	% (OPTIONAL)
HYDROCHLORIC ACID	5 ppm/Air	Chlorine 5 ppm/Air	20

SECTION 313 SUPPLIER NOTIFICATION

THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING & COMMUNITY RIGHT-TO-KNOW ACT OF 1986 AND 40 CFR 372. CAS 7647-01-0 20%

SECTION 3: PHYSICAL DATA

COLOR:	RED	BOILING PT: °F	ABOVE 272°
ODOR:	SHARP ODOR	SPECIFIC GRAVITY:	1.15
MELTING POINT: °F	N/A	PHYSICAL STATE:	LIQUID
SOLUBILITY IN WATER:	COMPLETE	VAPOR PRESS. (mmHg)	32 @ 77°F
VAPOR DENSITY:	1.2	EVAP. RATE: (Water = 1)	1.0

SECTION 4: FIRE AND EXPLOSION DATA

FLASH POINT: Non-Flammable FLAMMABILITY LIMITS: LEL: N/A UEL: N/A
EXTINGUISHING MEDIA: N/A
SPECIAL FIRE FIGHTING PROCEDURES: Water spray or fog will absorb hydrogen chloride vapor
UNUSUAL FIRE OR EXPLOSION HAZARDS: Hydrogen chloride vapor is seriously irritating and hazardous.
Use full protective clothing plus plastic or rubber self contained breathing apparatus.

SECTION 5: REACTIVITY DATA

STABILITY: Stable
CONDITIONS TO AVOID: Corrosive - avoid contact with reactive metals. has a high vapor pressure-keep away from heat.
INCOMPATIBILITY: May react violently with alkalis and reactive salts plus metals.
HAZARDOUS DECOMPOSITION OR BYPRODUCTS: Generates hydrogen chloride gas. Produces hydrogen with many metals. Can react violently under some conditions, a catalyzed reaction.
HAZARDOUS POLYMERIZATION:
CONDITIONS TO AVOID: None

SECTION 6: HEALTH HAZARD DATA

ROUTE OF ENTRY: **INHALATION?** Yes **SKIN?** Yes **INGESTION?** Yes

HEALTH HAZARDS (ACUTE AND CHRONIC): Inhalation of vapor produces irritation, cough, choking and if prolonged, inflammation of nose, throat & larynx. Contact with liquid causes irritation and burns of eyes and skin unless washed off promptly. Swallowing causes severe burns of mouth, esophagus and stomach, nausea, vomiting and thirst.

CARCINOGENICITY: **NTP?** N.L. **IARC Monographs?** N.L. **OSHA Regulated?** No
N.L. = Not Listed

SIGNS AND SYMPTOMS OF EXPOSURE: See above

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Not determined

EMERGENCY AND FIRST AID PROCEDURES: If inhaled, move to fresh air. If severe, give artificial respiration if needed and oxygen. In case of contact, flush eyes immediately with water for at least 15 minutes. Flush skin with water and remove contaminated clothing. If swallowed, give copious amounts of milk of magnesia and water (if conscious). Call a physician.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Flush area with water, neutralize washings with lime or soda ash.

WASTE DISPOSAL METHOD: Neutralize with alkaline material such as lime before sewerage, or pass through neutralizing limestone bed.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING: Store in a cool dry place well ventilated

OTHER PRECAUTIONS: None

SECTION 8: CONTROL MEASURES

RESPIRATORY PROTECTION (SPECIFY TYPE): If concentration exceeds TLV, use airline respirator, Bureau of Mines approved cartridge respirator (chlorine, acid) may be used for short, light exposure.

VENTILATION:

LOCAL EXHAUST: Required for open handling

SPECIAL: Absorb and neutralize

MECHANICAL (GENERAL): Acceptable for closed or small system to 5 ppm.

OTHER: Exhaust has noticeable irritating odor.

PROTECTIVE GLOVES: Rubber gloves to avoid skin contact

EYE PROTECTION: Splash proof goggles or face shield.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Rubber clothing and boots for splash hazard. Safety shower, eyewash

WORK/HYGIENIC PRACTICES: Wash hands after use