

GRAY IRON CASTING

MSDS Number

BKCLR

National Stock Number

4710-00F015050

Product Name

GRAY IRON CASTING

Manufacturer

MCDONALD A Y MFG CO

Product Identification

Product ID:GRAY IRON CASTING

MSDS Date:05/11/1988

FSC:4710

NIIN:00F015050

MSDS Number: BKCLR

Responsible Party

MCDONALD A.Y. MFG CO.

2830 MOUNT PLEASANT ST

BURLINGTON , IA 52601

Emergency Phone: (319) 752-5475

Info Phone: (319) 752-5475

Cage: 0L472

Contractor

MCDONALD A.Y. MFG CO.

BURLINGTON, IA 52601

(319) 752-5475

Cage: 0L472

Ingredients

GRAPHITE, SYNTHETIC

CAS: 7440-44-0

RTECS: FF5250100

Fraction By Weight: 2.5-4%

OSHA PEL15 MG/M3 TDUST

ACGIH TLV: 2 MG/M3 TDUST; 9293

SILICON

CAS: 7440-21-3

RTECS: VW0400000

Fraction By Weight: 1-3.5%

OSHA PEL15 MG/M3 TDUST

ACGIH TLV: 10 MG/M3 TDUST; 9293

MANGANESE (SARA III)

CAS: 7439-96-5

RTECS: OO9275000

Fraction By Weight:

OSHA PEL(C) 5 MG/M3 DUST

ACGIH TLV: 5 MG/M3 DUST 9293

NICKEL (SARA III)

CAS: 7440-02-0

RTECS: QR5950000

Fraction By Weight:

OSHA PEL1 MG/M3

ACGIH TLV: 1 MG/M3; 9192

CHROMIUM (SARA III)

CAS: 7440-47-3

RTECS: GB4200000

Fraction By Weight:

OSHA PEL1 MG/M3

ACGIH TLV: 0.5 MG/M3; 9192

EPA Report Quantity: 1 LB

DOT Report Quantity: 1 LB

CHROMIUM VI, ION (CR 6+) (OSHA CARCINOGEN); SOLUBLE

CAS: 18540-29-9

RTECS: GB6262000

OSHA PEL0.1 MG/CUM

ACGIH TLV: 50 UG/CUM (A1)

MOLYBDENUM

CAS: 7439-98-7

RTECS: QA4680000

Fraction By Weight:

OSHA PEL15 MG/M3 TDUST

ACGIH TLV: 10 MG/M3; 9293

SULFUR

CAS: 7704-34-9

RTECS: WS4250000

Fraction By Weight:

PHOSPHOROUS (YELLOW) (SARA III)

CAS: 7723-14-0

RTECS: TH3500000

Fraction By Weight:

OSHA PEL0.1 MG/M3

ACGIH TLV: 0.1 MG/M3; 9192

EPA Report Quantity: 1 LB

DOT Report Quantity: 1 LB

ALUMINUM (SARA III)

CAS: 7429-90-5

RTECS: BD0330000

Fraction By Weight:

OSHA PEL15MG/M3 DUST/5 FUME

ACGIH TLV: 10MG/M3 DUST; 9192

TITANIUM (DRY POWDER) (TI)

CAS: 7440-32-6

RTECS: XR1700000

Fraction By Weight:

COPPER (SARA III)

CAS: 7440-50-8

RTECS: GL5325000

Fraction By Weight:

OSHA PEL0.1MG/M3 FUME/1 DUST

ACGIH TLV: 0.2MG/M3 FUME; 9192

EPA Report Quantity: 5000 LBS

DOT Report Quantity: 5000 LBS

IRON

CAS: 7439-89-6

RTECS: NO4565500

Fraction By Weight: 91.3%

OSHA PEL10 MG/CUM

ACGIH TLV: 5 MG/CUM

Hazards

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:YES

Health Hazards Acute and Chronic:EYES: IRRITATION. INHALATION: FUMES OR DUST FROM CASTING MAY CAUSE PIGMENTATION (SIDEROSIS).

Explanation of Carcinogenicity:HEXAVALENT CHROMIUM & NICKEL ARE SUSPECTED TOBE AN A1 CARCINOGEN BY ACGIH.

Effects of Overexposure:EYES: IRRITATION. IHALATION: FUMES OR DUST FROM CASTING MAY CAUSE PIGMENTATION OF THE LUNG (SIDEROSIS).

First Aid

First Aid:INHALATION: REMOVE TO FRESH AIR. EYES: OBTAIN MEDICAL ATTENTION IN ALL CASES.

Fire Fighting

Unusual Fire/Explosion Hazard:CASTINGS WILL NOT BURN OR EXPLODE.

Accidental Release

Spill Release Procedures:COLLECTED DUST FROM MACHINING, WELDING MAY BE CLASSED AS A HAZARDOUS WASTE DEPENDING ON CIRCUMSTANCES.

Handling

Handling and Storage Precautions:KEEP DRY TO REDUCE RUSTING. GRINDING CASTING THAT ARE UNCLEARED OR HAVE EMBEDDED SAND WILL GENERATE DUST (FREE SILICA).

Other Precautions:FLAME CUTTING, ARC GOUGING, OR WELDING ON THE CASTING GENERATES IRON OXIDE FUME. DUST OR FUMES GENERATED BY MACHINING, GRINDING, OR WELDING ON THE CASTING WILL PUT CONTAMINANTS IN THE AIR. CASTING >85 % IRON. DUST IS IRON OXIDE.

Exposure Controls

Respiratory Protection:WEAR A NIOSH APPROVED RESPIRATOR FOR DUSTS OR FUME IF >TLV/PEL.

Ventilation:PROVIDE GENERAL VENTILATION & LOCAL EXHAUST TO KEEP BELOW TLV.

Protective Gloves:RECOMMENDED

Eye Protection:SAFETY GLASSES W/SHIELDS, GOGGLES

Other Protective Equipment:APRON, HELMET, FACE SHIELD & GAUNTLETS. IF NOISE IS >90 DECIBELS WEAR EAR MUFFS OR PLUGS.

Supplemental Safety and Health

WELDING/FLAME CUTTING CAN CONVERT FRACTION OF CHROMIUM TO WATER INSOLUBLE HEXAVALANT (CARCINOGENS) FORM 66% OF CHROMIUM IN WELDING FUME IS HEXAVALENT, 5% OF THAT IS INSOLUBLE OTHER TOXIC METALS IN AL LOY ARE PRESENT IN SMALL AMOUNTS.

Chemical Properties

Boiling Pt:B.P. Text:4982F

Spec Gravity:7.86

Appearance and Odor:SOLID SILVER GRAY COLOR W/NO ODOR

Stability

Stability Indicator/Materials to Avoid:YES

IRON

Stability Condition to Avoid:MOISTURE

Hazardous Decomposition Products:HYDROGEN PEROXIDE (>52% BY WT)

Disposal

Waste Disposal Methods:DISPOSE OF IN ACCORDANCE W/LOCAL, STATE, & FEDERAL REGULATIONS. IF DAMAGED, RETURN CASTINGS TO VENDOR OR SEND TO SCRAP RECLAIMER.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all liability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.