



Material Safety Data Sheet

SECTION I – COMPANY AND PRODUCT IDENTIFICATION

Issue Date: 10/04/08

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**Company:** Wear –Concepts Inc.  
2845 E. Heartland Drive  
Liberty, MO 64068

**Telephone Number:** 816-587-1923  
**Emergency Telephone Number:** 800-424-9300  
**Internet:** www.wearcon.com

**Product Name:** Wear-Con WC400 and WC500 Alloy Wear Plate – Includes all sheet plate, strip products

SECTION II – INGREDIENTS/HAZARD INFORMATION

COMPONENT	CAS NUMBER	% Weight	OSHA PEL (mg/m <sup>2</sup> )	ACGIH TLV (mg/m <sup>2</sup> )
IRON	1309-37-1	Balance	5.0 as oxide fumes	5.0 as oxide fumes
ALUMINUM	7439-90-5	.10 – 1.8	10 dust/oxide, 5 fume	10 dust/oxide, 5 fume
CARBON	7440-44-0	.01 – 1.5	None	None
CHROMIUM	7440-47-3	.01 – 12	.5 as dust & fume	.5 as dust & fume
COBALT	7440-48-4	8	.1 as dust & fume	.1 as dust & fume
COPPER	7440-50-8	.04 – 0.7	1.0 dust, .2 fume	1.0 dust, .2 fume
LEAD	7439-92-1	.15 - .35	.05 as dust & fume	.15 as dust & fume
MANGANESE	7439-96-5	.05 – 2.0	5 dust, 1 fume	5 dust, 1 fume
MOLYBDENUM	7439-98-7	.01 -1.10	10 as insoluble comp	10 as insoluble comp
NICKEL	7440-02-2	.01 -10	1.0 as dust & fume	1.0 as dust & fume
PHOSPHORUS	7723-14-0	.15 max	.1 as dust & fume	.1 as dust & fume
SILICON	7440-21-3	.15 – 2.20	10.0 as dust	10.0 as dust
SULFUR	7446-09-5	.001 - .35	13 as sulfur dioxide	5 as sulfur dioxide
TUNGSTEN	7440-33-7	0 – 18	5 as insoluble comp	5 as insoluble comp
VANADIUM	1314-62-1	.01 -1.0	.05 oxide dust & fume	.05 oxide dust & fume
ZINDE	1314-13-2	10 max	5.0 as oxide fume	5 as oxide fume/10 dust

NOTE: The above listing is a summary of elements used in alloying steel. Various grades of steel will contain different combinations of these elements. Trace elements may also be present in minute amounts.

SECTION III – HAZARDS IDENTIFICATION

Health: 2                      Flammability: 0                      Reactivity: 0

**Primary Routes of Entry:** Inhalation.

**Carcinogen:** The International Agency for Research on Cancer (IARC) lists certain hexavalent chromium compounds under Group 1 category “confirmed human carcinogen” and nickel and certain nickel compounds under Group 2A category “suspected human carcinogen”.

**Effects of Overexposure:**

Inhalation: Chronic inhalation overexposure to metal fume (iron oxide fume) may cause a benign pneumoconiosis (siderosis) with few or no symptoms. Chronic inhalation of lead fumes may cause lead poisoning which can affect the digestive system, nervous

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system, muscles and joints. Inhalation overexposure to manganese, copper or zink (coated products) may cause metal fume fever characterized by fever and chills (i.e. flu-like symptoms) appears 4-6 hours after exposure with no long term effects.

#### SECTION IV – FIRST AID MEASURES

**Inhalation:** Remove to fresh air. Seek medical attention if necessary.

#### SECTION V – FIRE-FIGHTING MEASURES

**Flash Point (method used):** None

**Extinguishing Media:** Carbon Dioxide, dry chemical, “alcohol” foam or water fog

#### SECTION VI – ACCIDENTAL RELEASE MEASURES

None.

#### SECTION VII – HANDLING AND STORAGE

None.

#### SECTION VIII – PERSONAL PROTECTION

**Respiratory Protection:** All workers and bystanders must be protected from over exposure. Avoid breathing vapors. During welding and grinding operations, use NIOSH/MSHA approved mechanical filter respirator to remove solid airborne particles of dust.

**Engineering Controls:** General or local exhaust ventilation during welding and grinding.

#### SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

**Boiling Point:** N/A

**Vapor Pressure:** N/A

**Vapor Density:** N/A

**Solubility in Water:** N/A

**Appearance & Odor:** Silver Grey Metallic (Steel)

**Specific Gravity:** 7

**Volatiles By Volume (%):** N/A

**Evaporation Rate (butyl acetate=1):** N/A

**Melting Point (°F):** 2750 Deg F

#### SECTION X – STABILITY AND REACTIVITY

**Stability:** Stable

**Conditions of Reactivity:** N/A

**Incompatibility:** Avoid contact with mineral acids, will release hydrogen gas.

**Hazardous Decomposition Products:** N/A

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## SECTION XI – TOXICOLOGICAL INFORMATION

Chronic inhalation overexposure to metal fume (iron oxide fume) may cause a benign pneumoconiosis (siderosis) with few or no symptoms. Chronic inhalation of lead fumes may cause lead poisoning which can affect the digestive system, nervous system, muscles and joints. Inhalation overexposure to manganese, copper or zinc (coated products) may cause metal fume fever characterized by fever and chills (i.e. flu-like symptoms) appears 4-6 hours after exposure with no long term effects.

## SECTION XII – ECOLOGICAL INFORMATION

No information available

## SECTION XIII – DISPOSAL CONSIDERATIONS

N/A

## SECTION XIV – TRANSPORTATION INFORMATION

N/A

## SECTION XV – REGULATORY INFORMATION

This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

This information contained herein is based on data believed by WEAR CONCEPTS to be accurate, but we do not assume any liability for the accuracy of this information. We neither suggest nor guarantee that any hazards mentioned are the only ones that exist. Anyone intending to rely on any recommendation or to use any equipment, technique or material mentioned should be also satisfy himself that he can meet all applicable safety and health standards.