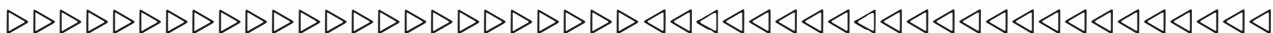


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1. PRODUCT AND COMPANY IDENTIFICATION:

PRODUCT NAME: ERAZ61A, ERAZ92A
MANUFACTURER: Welding Material Sales, Inc.
 3940 Stern Ave
 St. Charles IL 60174
 Phone: 630-232-6421
 Fax: 888-733-1512
 E-mail: sales@weldingmaterialsales.com

EMERGENCY TELEPHONE NUMBER: 1-800-424-9300

2. HAZARD IDENTIFICATION:

Emergency Overview: This product is normally not considered hazardous as shipped. Avoid eye contact or inhalation of dust from the product. When this product is used in a welding process, the most important hazards are welding fumes and heat.

Classification of the Substance/Mixture

CLP/GHS Classification (1272/2008):

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

EU Classification (67/548/EEC):

This substance is not classified as dangerous according to Directive 67/548/EEC.

Hazardous Classification per 29CFR 1910.1200 (Rev. July 1, 2012):

Not a hazardous substance or mixture per 29CFR 1910.1200 (Rev. July 1, 2012)

Labelling:

Symbols: Void

Signal Word: Void

Hazard Statements: Void

Precautionary Statements: Void

3. COMPOSITION / INFORMATION ON INGREDIENTS:

Chemical Identity	CAS #	Range %	OSHA PEL (mg/m3)	ACGIH-TLV (mg/m3)	Carcinogenicity	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)	Hazardous Classification per 29CFR 1910.1200 (Rev. July, 2012)
#Zinc	7440-66-6	.40-2.5	5.0 (as Fume)	5.0 (as fume)	No	(N), R50/53	(H400) Aquatic Acute 1 (H410) Aquatic C. 1	(H400) Aquatic Acute 1 (H410) Aquatic C. 1
#Aluminum	7429-90-5	1-11	15	10	No	(F) R11 – R15	(H228) Flam. Sol. 2 (H261) Water-react. 3	(H228) Flam. Sol. 2 (H261) Water-react. 3
Magnesium	7439-95-4	85-95	15 (as Fume)	10 (as Fume)	No	(F) R15, R17	(H250) Pyr. Sol. 1 (H260) Water-react. 1	(H250) Pyr. Sol. 1 (H260) Water-react. 1
#Manganese	7439-96-5	.10-.50	1.0 (as Fume)	.2	No	(Xn) R48	(H373) STOT RE 2	(H373) STOT RE 2

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Requirements (EN Levels)	Type A	Type B
Abrasion (Cycles)	2 (500)	1 (100)
Cut (Factor)	1 (1.2)	1 (1.2)
Tear (Newton)	2 (25)	1 (10)
Puncture (Newton)	2 (60)	1 (20)
Burning Behaviour	3	2
Contact Heat	1	1
Convective Heat	2	-
Small Splashes	3	2
Dexterity	1 (11)	4 (6.5)

Type B gloves are recommended when high dexterity is required as for TIG welding, while type A gloves are recommended for other welding processes. The contact temp (°C) is 100 and the threshold time (seconds) >15.

Eyes protection: Welder's helmet or face shield with colour absorbing lenses. Shield and filter to provide protection from harmful UV radiation, infra red and molten metal approved to standard EN379. Filter shade to be a minimum of shade 9.

Skin protection: Heat-resistant protective clothing. Wear safety boots, apron, arm and shoulder protection. Keep protective clothing clean and dry. Clothing should be selected to suit the level, duration and purpose of the welding activity.

Class 1	
Impact of Spatter	15 Drops
Heat Transfer (radiation)	RHTI 24 ≥ 7 seconds
Process	<p>Manual welding with light formation of spatter and drops</p> <ul style="list-style-type: none"> • Gas Welding • TIG Welding • MIG Welding • Micro plasma welding • Brazing • Spot Welding • MMA Welding (with rutile-covered electrode)
Environmental Conditions	<p>Operation of machines</p> <ul style="list-style-type: none"> • Oxygen cutting machines • Plasma cutting machines • Resistance welding machines • Machines for thermal spraying • Bench welding

Class 2	
Impact of Spatter	25 Drops
Heat Transfer (radiation)	RHTI 24 ≥ 16 seconds
Process	<p>Manual welding with heavy formation of spatter and drops</p> <ul style="list-style-type: none"> • MMA welding (with basic or cellulose-covered electrodes) • MAG welding (with CO2 or mixed gases) • MIG Welding (with high current) • Self shielded flux core arc welding • Plasma cutting • Gouging • Oxygen cutting • Thermal spraying

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Environmental Conditions	Operation of machines <ul style="list-style-type: none"> • In confined spaces • At overhead welding/cutting or in comparable constrained positions
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9. PHYSICAL AND CHEMICAL PROPERTIES:

- Appearance:** Solid
- Color:** None
- Odour:** Odourless
- Odour Threshold:** Not Available
- pH Value:** Not Available
- Specific Gravity:** 1.82
- Melting Point/Melting Range:** 1100° F, 593° C
- Freezing Point:** Not Available
- Boiling Point/Boiling Range (° F @ 760 mmHg):** N/A
- Flash point:** Not Available
- Evaporation Rate:** Not Available
- Self-in flammability:** Not Available
- Explosion limits:** Not Available
- Vapour pressure:** (mm Hg): NA
- Vapour density:** (Air= 1): NA
- Density at 20°C:** Not Available
- Percent volatile by volume:** Not Available
- Bulk Density:** Not Available
- Relative density:** Not Available
- Solubility:** Soluble in water
- Reactivity in Water:** Not Available
- Partition coefficient:** Not Available
- Auto-ignition temperature:** Not Available
- Decomposition temperature:** Not Available
- Other Information:** No available data.

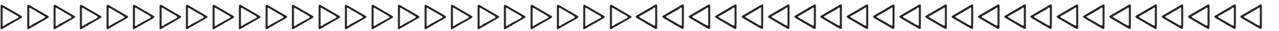
10. STABILITY AND REACTIVITY:

- Chemical Stability:** This product is stable under normal conditions.
- Hazardous Reactions:** Contact with chemical substances like acids or strong bases cause generation of gas.
- Conditions to Avoid:** This product is stable under normal conditions.
- Incompatible Materials:** Strong acids and strong Alkalis.
- Hazardous Decomposition Products:** When this product is used in a welding process, hazardous decomposition product would include those from volatilization, reaction or oxidation of the material listed in section 3 and those from the base metal and coating. The amount of fumes generated from this product varies with welding parameters and dimensions. Refer to applicable national exposure limits for fume compounds, including those exposure limits for fume compounds found in section 3. Manganese has a low exposure limit, in some countries that may be easily exceeded. Reasonably expected gaseous products would include carbon oxides, nitrogen oxides and ozone. Air contaminants around the welding area can be affected by the welding process and influence the composition and quality of fumes and gases produced.

11. TOXICOLOGICAL INFORMATION:

- Signs and Symptoms of Overexposure:** Inhalation of welding fumes and gases can be dangerous to your health. Classification of welding fumes is difficult because of varying base materials, coatings, air contaminants and processes. The Internal Agency for Research on Cancer has classified welding fumes as possible carcinogenic to humans (Group 2B).

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Environmental hazards: Welding rods are not environmentally hazardous according to the criteria of the UN Model Regulations (as reflected in the IMDG Code, ADR, RID and AND) and/or a marine pollutant to the IMDG Code.

Special precautions for users: There are not any special precautions which a user should or must comply or be aware of in connection with transport or conveyance either within or outside premises of the welding rod.

Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code: Welding rods in massive form do not subject under MARPOL 73/78 and the IBC Code. Not applicable – product is transported only in packaged form.

15. REGULATORY INFORMATION:

Safety, health and environment regulations/legislation specific for the substance or mixture: Read and understand the manufacturer's instructions, your employer's safety practices and the health and safety instructions on the label. Observe any federal and local regulations. Take precautions when welding and protect yourself and others.

Warning: Welding fumes and gases are hazardous to your health and may damage lungs and other organs. Use adequate ventilation. Electric shock can kill. Arc rays and sparks can injure eyes and bum skin. Wear correct hand, head, eye and body protection.

Chemical safety assessment: No

USA: Under the OSHA Hazard Communication Standard, this product is considered hazardous.

CALIFORNIA PROPOSITION 65: No compounds present. (California Health & Safety Code § 25249.5 et seq.)

United States EPA Toxic Substance Control Act: All constituents of this product are on the TSCA inventory list or are excluded from listing.

EPCRA/SARA Title III Toxic Chemicals

The following metallic components are listed as SARA 313 "Toxic Chemicals" and potential subject to annual SARA reporting. See Section 3 for weight percentage.

Ingredient Name	Disclosure Threshold
Aluminum	15 mg/m3
Manganese	1.0 (as Fume)
Zinc	5.0 (as Fume)

16. OTHER INFORMATION:

The information in this document is believed to be correct as of the date issued. However, no warranty is expressed to be implied regarding the accuracy or completeness of this information. This information and product are furnished on the condition that the person receiving them shall make his own determinations as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

This Safety Data Sheet complies with the EC directives 91/155/EEC and 93/112/EEC, including modifications 2001/58/EC.

Complies with OSHA Communication Standard 29 CFR 1910.1200 and Superfund Amendments and Reauthorization Act (SARA) of 1986 Public Law 99-499

Hazard Statements:

- H228** – Flammable solid
- H250** – Catches fire spontaneously if exposed to air.
- H260** – In contact with water releases flammable gases which may ignite spontaneously.
- H261** – In contact with water releases flammable gas.
- H373** – May cause damage to organs through prolonged or repeated exposure.
- H400** – Very toxic to aquatic life
- H410** –Very toxic to aquatic life with long lasting effects

R-Phrases:

- R11** – Highly flammable
- R15** – Contact with water liberates extremely flammable gases.
- R17** – Spontaneously flammable in air
- R48** – Danger of serious damage to health by prolonged exposure.
- R50/53** – Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrases:

