SAFETY DATA SHEET

ROCKMOUNT Welding Alloys

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: RAPID STEEL EPOXY

ROCKMOUNT RESEARCH & ALLOYS, INC.
11909 N. E. 95th Street
Vancouver, WA 98668
Phone: 360-254-2020
Fax: 360-254-2332
E-mail: sales@weldit.com

EMERGENCY TELEPHONE NUMBER: 360-254-2020

2. HAZARDS IDENTIFICATION

Emergency Overview: These products are normally not considered hazardous as shipped. Avoid inhalation of dust or eye contact from these producs. When these producs are used in a welding process, the most important hazards are heat, radiation, electric shock and inhalation of welding fumes.

Classification of the Substance/Mixture

CLP/GHS Classification (1272/2008):

Skin Irritation, Category 2
Eye Irritation, Category 2A
Skin Sensitisation, Category 1
Hazardous to the Aquatic Environment - Long-Term Hazard, Category 2

EU Classification (67/548/EEC):

Irritant (Xi), Dangerous for the Environment (N) R36/38, R43, R51/53

Labelling:
Symbols:

Signal Word: Danger
Hazard Statements:
H315- Causes skin irritation.
H317 - May cause an allergic skin reaction.
H319 - Causes serious eye irritation.
H411 - Toxic to aquatic life with long lasting effects.
Precautionary Statements:
P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 – Wash skin and hair thoroughly after handling.
P270 – Do not eat, drink or smoke when using this product.
P272 – Contaminated work clothing should not be allowed out of the workplace.
P273 - Avoid release to the environment.
P280 – Wear protective gloves/eye protection/face protection.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332+P313 - If skin irritaition occurs: Get mediacl advice/attention.
P333+P313 - IF skin irritation or rash occurs: Get medical advise/attention.
P337+P313 - IF eye irrtation persists: Get medical advice/attention.
P362- Take off contaminated clothing and wash before reuse.
P363 - Wash contaminated clothing before reuse.
P391 - Collect spillage.
P501 – Dispose of contents/container in accordance with local/regional/national/international regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity	CAS #	Range %	OSHA PEL	ACGIH-TLV	Carcinogenicity	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)
			(mg/m3)	(mg/m3)			
Glycidyl Ethers of Bisphenol A Resins	25068-38-6	5-10	N/est	N/est	No	(Xi) R36/38 (Xi) R43 (N), R51/53	(H315) Skin Irrit. 2 (H319) Eye Irrit.. 2A (H317) Skin Sens. 1 (H411) Aquatic C. 2
Tri(dimethy-laminomethyl) phenol	90-72-2	.5-1.5	5 PPM	N/est	No	(Xn) R22 (Xi) R36/38	(H302) Acute Tox. 4 (H315) Skin Irrit. 2 (H319) Eye Irrit.. 2A
Diglycidyl Ethers of Bisphenol A Resins	02864-14-4	1-5	N/est	N/est	No	(Xi) R36/38 (Xi) R43 (N), R51/53	(H315) Skin Irrit. 2 (H319) Eye Irrit.. 2A (H317) Skin Sens. 1 (H411) Aquatic C. 2

Important: This section covers the materials of which the products manufactured. The fumes and gases produced during normal use of this product are covered in section 10. The term "Hazardous" in "Hazardous Material" should be interpreted as a term required and defined in OSHA Hazard Communication Standard 29CFR 1910-1200 and it does not necessarily imply the existence of hazard. The chemicals or compounds reportable by Section 313 of SARA are marked by the symbol #.

4. FIRST AID MEASURES

Inhalation: Remove to fresh air immediately or administer oxygen. Get medical attention immediately.
Skin: Flush skin with large amounts of water. If irritation develops and persists, get medical attention.
Eye: Flush eyes with water for at least 15 minutes. Get medical attention.
Ingestion: Obtain medical attention immediately if ingested.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Water spray, foam, CO2, dry chemical.
Unsuitable Extinguishing Media: Not applicable.
Specific Hazards in Case of Fire: Not applicable.
Protective Equipment: Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Environment Precautions: Refer to section 13.
Cleaning Measures: Solid objects may be picked up and placed into a container. Liquids or pastes should be scooped up and placed into a container. Wear proper protective equipment while handling these materials. Do not discard as refuse.

7. HANDLING AND STORAGE

Precautions for Safe Handling: Keep container tightly sealed. Store in cool, dry location in tightly closed containers. Ensure good ventilation at the workplace. Open and handle the container with care. Wash thoroughly after handling, especially before eating, drinking, smoking and using restroom facilities. Container can be hazardous when empty. Do not re-use empty container for food, clothing or products for human or animal consumption, or where skin contact can occur.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

The usual precautionary measures for handling chemicals should be followed. Keep away from food, beverages and food. Remove all soiled and contaminated clothing immediately. Wash hands before break and at the end of work.
Exposure limits: Use industrial hygiene equipment to ensure that exposure does not exceed applicable national exposure limits. The limits defined under section 3 can be used as guidance. Unless noted, all values are for 8 hour time weighted average.
Biological limits: No available data
Personal protection: Respiratory protection: Use an air purifying dust respirator when welding or brazing in a confined space, or when local exhaust or ventilation is not sufficient to keep exposure values within safe limits. Hands protection: Wear appropriate gloves to prevent skin contact.
EN 12477: Protection gloves for welders

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)

Class 1	
Impact of Spatter	15 Drops
Heat Transfer (radiation)	RHTI 24 ≥ 7 seconds
Process	Manual welding with light formation of spatter and drops • Gas Welding • TIG Welding • MIG Welding • Micro plasma welding • Brazing • Spot Welding • MMA Welding (with rutile-covered electrode)
Environmental Conditions	Operation of machines • 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	Manual welding with heavy formation of spatter and drops • MMA welding (with basic or cellulose-covered electrodes) • MAG welding (with CO_2 or mixed gases) • MIG Welding (with high current) • Self shielded flux core arc welding • Plasma cutting • Gouging • Oxygen cutting • Thermal spraying
Environmental Conditions	Operation of machines • In confined spaces • At overhead welding/cutting or in comparable constrained positions

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Putty
Color: Gray
Odour: Sulphur, Mercaptan
Odour Threshold: Not Available
pH Value: >7.0
Melting Point/Melting Range: Not Available
Freezing Point: Not Available
Boiling Point/Boiling Range: Not Available
Flash point: Not Available
Evaporation Rate: Not Available
Self-in flammability: Not Available
Explosion limits: Not Available
Vapour pressure: Not Available
Vapour density: Not Available
Density at 20ºC: Not Available
Relative density: Not Available
Solubility: Soluble in water.
Partition coefficient: Not Available
Auto-ignition temperature: Not Available
Decomposition temperature: Not Available
Other Information: No available data.

10. STABILITY AND REACTIVITY

Hazardous Reactions: Contact with chemical substances like acids or strong bases cause generation of gas.
Conditions to Avoid: Not applcable.
Incompatible Materials: Oxidizing agents. Reaction with strong reducing agents such as metal hydrides, acetic anhydride or alkai metals will generate hydrogen gas which could create an explosive hazard.
Hazardous Decomposition Products: CO2, aldehydes, acids, oxides of sulphur and nitrogen.

11. TOXICOLOGICAL INFORMATION

Acute Effects: Overexposure to welding fumes may result in symptoms like metal fume fever, dizziness, nausea, dryness or irritation of the nose, throat or eyes. Signs and symptoms of Poassium Chloride exposure are hyperkalaemia, nausea, vomiting, abdominal pain, diarrhea, constipation, paraesthesia, thirst, dizziness, rash, pruritus, weakness, muscle cramps, minor psychiatric changes and minor visual changes. May cause sensitisation by skin contact.

LD/LC50 Values that are relevant for classification		
Glycidyl ethers of bisphenol A resins 25068-38-6		
Oral	LD50	>5000 mg/kg (rat)
Skin	LC50	>20000 mg/kg (rabbit)

LD/LC50 Values that are relevant for classification		
Diglycidyl ehters of bisphenol A resins 028064-14-4		
Oral	LD50	>5000 mg/kg (rat)
Skin	LC50	>20000 mg/kg (rabbit)

LD/LC50 Values that are relevant for classification		
Tri(dimethylaminomethl)phenol 90-72-2		
Oral	LD50	1200 mg/kg (rat)
Dermal	LD50	1280 mg/kg (rat)

Chronic Effects: Overexposure to welding fumes may affect pulmonary function and eyes. Pre-existing pulmonary diseases (e.g., bronchitis, asthma) may be aggravated by inhalation exposure, particularly as fume. Chronic copper poisoning is typified by hepatic cirrhosis, brain damage and demyelination, kidney defects and copper deposition in the cornea as exemplified by humans with Wilson's disease. It has also been reported that copper poisoning has led to haemolytic anemia and accelerates arteriosclerosis.

12. ECOLOGICAL INFORMATION

Toxicity: No available data.
Persistence and Degradability: No available data.
Bio Accumulative Potential: No availability data.
Mobility in Soil: No available data.
Other Adverse Effects: No available data.
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system. Do not allow product to be released in the environment without proper governmental permits.

13. DISPOSAL CONSIDERATIONS

Product: For product elimination, dispose of in accordance with EPA regulations.
Package: May be disposed in approved landfills provided local regulations are observed.

14. TRANSPORT INFORMATION

UN-number: Not regulated
UN proper shipping name: N/A
Transport hazard class: N/A
Packing group: N/A

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.
Chemical safety assessment: No
USA: Under the OSHA Hazard Communication Standard, this product is considered hazardous. This product contains or produces a chemical known to the state of California to cause cancer and birth defects (or other reproductive harm). (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: Not Applicable.

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 Material 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:
H302 - Harmful if swallowed.
H315 – Causes skin irritation.
H317 – May cause an allergic skin reaction.
H319 – Causes serious eye irritation.
H411 - Toxic to aquatic

R22 - Harmful if swallowed.
R36/38 - Irratating to eyes and skin.
R43 - May cause sensitization by skin contact.
R51/53 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-Phrases:
S2 - Keep out of reach of children.
S24 - Avoid contact with skin.
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 - After contact with skin, wash immediately with plenty of water.
S36/37/39 – Wear suitable protective clothing, gloves and eye/face protection.
S61 - Avoid release to the environment.

End of the document.