



Material Safety Data Sheet (MSDS)

Product: Steel Reinforcing Bars (Rebar) – ASTM A615 Grades 40, 60, 75
Form: Deformed Carbon Steel Bars

1. Identification of the Substance and Company

- **Product Name:** Reinforcing Steel Bar (Rebar)
- **Standard:** ASTM A615 / A615M
- **Grades Covered:**
 - Grade 40 (280): Minimum Yield Strength 280 MPa (40 ksi)
 - Grade 60 (420): Minimum Yield Strength 420 MPa (60 ksi)
 - Grade 75 (520): Minimum Yield Strength 520 MPa (75 ksi)
- **Available Forms:** Deformed and plain bars, nominal sizes #3 (10 mm) to #11 (36 mm), lengths 6–12 m (custom available).
- **Synonyms:** Rebar, Deformed Bar, Construction Steel, Reinforcing Bar
- **Intended Use:** Reinforcement of concrete structures such as buildings, bridges, tunnels, and infrastructure.
- **Company Identification:**

Basekim Kimyasal Ürünler Ltd.
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- **Emergency Contact:**

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2. Hazards Identification

- **Classification (GHS):** Not classified as hazardous (solid steel article).
- **Physical Hazards:** Sharp edges may cause cuts; heavy bundles may cause crush injuries.
- **Chemical Hazards:** Stable in solid form. Welding, grinding, or cutting may release fumes containing iron oxides, manganese, and other particulates that can irritate eyes, skin, and lungs.

3. Composition / Information on Ingredients

Component	Typical Range (%)
Iron (Fe)	Balance (~97–98)
Carbon (C)	≤ 0.30
Manganese (Mn)	≤ 1.50
Silicon (Si)	≤ 0.50
Phosphorus (P)	≤ 0.06
Sulfur (S)	≤ 0.06

4. First Aid Measures

- **Inhalation (fumes/dust):** Move to fresh air, seek medical attention if symptoms persist.
- **Skin (cuts):** Wash with water, disinfect, bandage.
- **Eye Contact (dust/particles):** Rinse thoroughly with water, seek medical help if irritation continues.
- **Ingestion:** Not applicable.



5. Fire Fighting Measures

- **Flammability:** Non-flammable (solid steel).
- **Suitable Extinguishing Media:** Any for surrounding fire.
- **Fire Hazards:** At very high temperature, iron oxides and fumes may form.
- **Protective Equipment:** Firefighters should wear breathing apparatus if fumes are present.

6. Accidental Release Measures

- Not applicable to solid bars.
- Use cranes or forklifts for safe lifting.
- Keep area clear when moving heavy bundles.

7. Handling and Storage

- **Handling:** Use gloves, boots, and protective clothing. Avoid standing under suspended loads.
- **Storage:** Store on level ground with proper supports. Do not exceed safe stacking height. Protect from moisture to minimize surface rust.

8. Exposure Controls / Personal Protection

- **Exposure Limits:** None for solid billets.
- **PPE:**
 - Gloves, boots, and protective clothing for handling.
 - Safety glasses during cutting or grinding.



- Respiratory protection when welding to avoid fumes.

9. Physical and Chemical Properties

- Appearance: Solid deformed bars, metallic gray
- Density: $\sim 7.85 \text{ g/cm}^3$
- Melting Point: $\sim 1535^\circ\text{C}$
- Solubility: Insoluble in water
- Odor: None

10. Stability and Reactivity

- **Stability:** Stable under normal conditions.
- **Incompatibility:** Strong acids and oxidizers.
- **Decomposition:** Iron oxides and fumes if overheated.

11. Toxicological Information

- **Solid Form:** Non-toxic.
- **Dust/Fumes:** Irritating to eyes, skin, lungs during welding or grinding.
- **Chronic Exposure:** Long-term inhalation of fumes may cause respiratory or neurological effects.

12. Ecological Information



- Non-hazardous in solid form.
- 100% recyclable.
- Inert in the environment, not biodegradable.

13. Disposal Considerations

- Recycle scrap steel through authorized facilities.
- Dispose of in compliance with local regulations.

14. Transport Information

- **UN Number:** Not regulated.
- **Hazard Class:** Not dangerous goods.
- **Packaging:** Supplied in secured bundles.
- **Precautions:** Secure during transport to prevent shifting.

15. Regulatory Information

- Classified as an **article** under OSHA (29 CFR 1910.1200), EU REACH, and GHS.
 - Exempt from hazardous chemical classification.
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16. Other Information

This MSDS applies to all reinforcing bars under ASTM A615 (Grades 40, 60, 75).

Legal Status:

Steel rebar is considered a finished **article**, not a hazardous chemical. Therefore, providing an MSDS is **not a legal requirement**. This document is supplied voluntarily by Basekim Kimyasal Ürünler Ltd. to support safe handling, customer communication, shipping, and compliance needs