

SAFETY DATA SHEET

According to "BY-LAW ON REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS" (KKDİK) published in the Official Gazette dated 23 June 2017 and numbered 30105 (Repeated) in Republic of Türkiye

Issue Date: 20.04.2021
Revision Date: 10.01.2025

1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/ UNDERTAKING

1.1 Product Identifier

Product Name STEEL BILLET
CAS¹ No 7439-89-6
EC² No 231-096-4
Ürünün Formu Inorganic
IUPAC³ Name Iron
GBF No 006

1.2 Relevant identified uses of the substance or mixture and uses advised against

Intended use Profesyonel, industrial

1.3 Details of the supplier of the safety data sheet

Company İÇDAŞ Steel, Energy, Shipbuilding and Transportation Industries Inc.
Adress Mahmutbey Mahallesi Dilmenler Caddesi
No:20 34218 Bağcılar/İstanbul TÜRKİYE
Telephone 0 212 604 04 04 (pbx)
e-mail icdas@icdas.com.tr
WEB <https://www.icdas.com.tr/>

1.4 Emergency Telephone Numbers

Company Emergency phone +90 (286) 395 10 10 (Pbx) (1236, 1239, 1083)
National Emergency phone 112

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture (OG⁴: 11.12.2013 - 28848 Mükerrer)

Not a hazardous substance or mixture according to Regulation "Classification, Packaging and Labeling of Hazardous Substances", OG 11.12.2013-28848.

2.2 Label elements

According to Regulation "Classification, Packaging and Labeling of Hazardous Substances", OG 11.12.2013-28848.

Hazard pictograms

Not applicable

Signal word: Not applicable

2.3 Other hazards

Results of PBT⁵ and vPvB⁶ assessment: Not applicable

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Substances	CAS ⁷ – EC ⁸	%	Classification OG: 11.12.2013 - 28848 (SEA)
Iron	CAS: 7439-89-6 EC: 231-096-4	≥97	Not a hazardous substance.
Manganese	CAS: 7439-96-5 EC:231-105-1	0,4-1,4	Not a hazardous substance.

Contains less than 1% Carbon, Chromium, Silcon, Nickel and Copper.

3.2 Mixture

Not applicable.

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4. FIRST AID MEASURES

4.1 Description of first aid measures

General warnings

Consult a doctor. Present this safety data sheet to the doctor.

In case of inhalation

Under normal conditions, exposure via inhalation is not expected. In case of exposure due to dust formation during industrial applications such as cutting etc., remove to fresh air and place in a resting position. If feeling unwell, consult a physician.

In case of contact with skin

Remove contaminated clothing and shoes immediately and wash skin with plenty of soap and water. If irritation or allergic reaction occurs, consult a physician.

In case of contact with eyes

Wash eyes with plenty of water, keeping eyelids open. Remove contact lenses if present. Do not rub eyes. If eyes are irritated, consult a physician.

If swallowed

Oral exposure is not expected under normal conditions. In case of oral exposure due to dust formation during industrial applications such as cutting etc., do not induce vomiting. If the victim is conscious, give him/her a glass of water to drink. If the victim is unconscious, do not give anything by mouth. Consult a physician.

4.2 Important symptoms and effects, both acute and chronic

Under normal conditions, exposure to the product is not expected. Dust formation during industrial applications such as cutting etc. may cause irritation, breathing difficulties and coughing.

4.3 Need for Immediate Medical Attention and Special Treatment

Apply treatment according to the symptoms.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

The substance is not combustible. Use any means suitable for extinguishing surrounding fire

Unsuitable Fire Extinguishers

Do not apply water to molten metal.

5.2 Special hazards arising from the substance or mixture

At temperatures above the melting point, fumes containing metal oxides may be formed.

5.3 Advice for fire fighters

Fully protective, cut-proof and fire-resistant clothing and gloves, including a positive pressure breathing apparatus, must be worn.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Not applicable for the product. Use personal protective equipment in case of dust formation during industrial applications such as cutting etc. (see Section 8). Ensure good ventilation.

6.2 Environmental precautions

Collect contaminated water/fire extinguishing water. Do not allow to mix into waters, soil or sewage. Inform the competent authorities in case of mixing into waters or sewage.

6.3 Methods and material for containment and cleaning up

Collect the spilled product and send it for recycling or treat as specified in the waste disposal section.

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6.4 Reference to other sections

For safe use section 7

For personal protection see section 8

For waste disposal see section 13

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Ensure good industrial hygiene.

Use the prescribed personal protective equipment. (Article 8)

Wash your hands with plenty of water and soap after work.

Do not breathe dust. Ensure that there is good ventilation in the workplace.

Do not eat, drink or smoke while working with chemicals.

Work in accordance with the provisions of the Regulation on Health and Safety Measures in Working with Chemical Substances.

7.2 Conditions for safe storage, including any incompatibilities

Store in a dry, cool and well-ventilated place. Avoid contact with acids and incompatible substances.

7.3 Specific end use(s)

No use other than that described in section 1.2 is intended.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

DNEL Values [CAS #7439-89-6#]

Worker (Inhalation, long-term local effect): 3 mg/m³

General population (Inhalation, long-term local effect): 1.5 mg/m³

General population (Oral, long-term systemic effect): 710 µg/kg bw/day

Repeated Dose:

NOAEC (Inhalation, systemic effect): 5 mg/m³ rat

LOAEL (Oral systemic effect): 26 mg/kg bw/day rat

8.2 Exposure controls

Appropriate Engineering Controls

To prevent the risk of exceeding the occupational exposure limit values of the product; Carry out studies that will allow you to assess the risk to the safety and health of workers arising from the substance or mixture, in accordance with the "Regulation on Health and Safety Measures in Working with Chemical Substances" (OG.-12.08.2013-28733).

Make sure that the work environment is well ventilated to prevent dust formation during industrial applications such as cutting etc.

Respiratory protection

With correct and appropriate use and under normal conditions, respiratory protection is not required.

Respiratory protection is required in the following cases:

-Dust formation

- If exposure limit values are exceeded, wear a respiratory mask type FFP2 according to EN 143.

Eye protection

In areas where the risk of splashing is high, use safety glasses that fit snugly to the eyes and have side protection that complies with the EN166 standard.

Hand protection

Use butyl or nitrile gloves that comply with EN 374 standard. Check the gloves before use.

Body protection

Use body-hugging work clothes that comply with EN 465 or EN 467 standards and steel-toed work shoes that comply with EN 344 standards.

8.3 Environmental exposure controls

If it mixes with water, soil or sewage, notify the competent official authorities.

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid
Color	Black
Odor	Odorless
pH	Not applicable
Melting point/freezing point (°C)	1150 - 1538 °C
Initial boiling point and boiling range (°C)	2 861 °C
Flash point (°C)	Not applicable
Flammability (solid, gas)	Not applicable
Lower explosive limits	Not applicable
Upper explosive limits	Not applicable
Vapor pressure (mmHg)	Not applicable
Vapor density	Not applicable
Density (g/cm ³)	7,86 gr/cm ³
Water solubility	Insoluble
Partition coefficient: n-octanol/water	Not applicable
Autoignition temperature, °C	Not applicable
Decomposition temperature (°C)	Not applicable
Explosive properties	Not explosive
Oxidizing properties	Not applicable
Viscosity	Not applicable

9.2 Other information

Particle characteristics	No data available
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10. STABILITY AND REACTIVITY

10.1 Reactivity

Non-reactive under specified conditions of use and storage.

10.2 Chemical stability

It is stable under specified storage and usage conditions.

10.3 Possibility of hazardous reactions

Flammable hydrogen gas is released on contact with strong acids..

10.4 Situations to avoid

No data available

10.5 Substances to avoid

Strong acids.

10.6 Hazardous decomposition products

At temperatures above the melting point, fumes containing metal oxides may be formed.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

Iron[CAS #7439-89-6]

LD₅₀ oral rat: 98.6 g/kg bw

LC₅₀ inhalation/6 hr/aerosol rat > 250 mg/m³

Skin corrosion/irritation: Based on available data, does not meet the classification criteria, not classified

Serious eye damage/irritation: Based on available data, does not meet the classification criteria, not classified

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Respiratory or skin sensitization: Based on available data, does not meet the classification criteria, not classified

Carcinogenicity / Mutagenicity / Reproductive toxicity: Based on available data, does not meet the classification criteria, not classified.

Specific Target Organ Toxicity - single exposure: Based on available data, does not meet the classification criteria, not classified.

Specific Target Organ Toxicity - repeated exposure:

In case of dust formation during industrial applications such as cutting etc., it may irritate the respiratory tract in case of long-term exposure..

Aspiration hazard: Based on available data, classification criteria are not met, not classified.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

No data available.

12.2 Persistence and degradability

Not applicable

12.3 Bioaccumulative potential

No data available.

12.4 Mobility in soil

No data available.

12.5 Results of PBT⁹ and vPvB¹⁰ assessment

No data available..

12.6 Other adverse effects

No data available..

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste must be disposed of in accordance with official regulations. Prevent it from mixing with surface and groundwater, drinking water sources, standing and flowing water, and sewage systems.

13.2 Legal provisions regarding waste management

An authorized waste manager should be consulted for evaluation and disposal..

14. TRANSPORT INFORMATION

14.1 UN Number¹¹

ADR/RID¹²- IMDG¹³- IATA¹⁴: NOT CLASSIFIED AS HAZARDOUS.

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class

Not applicable

14.4 Packaging group

Not applicable

14.5 Environmental hazards

Not classified as hazardous.

14.6 Special precautions for user

Not applicable

14.7 Bulk transport according to MARPOL 73/78 Annex II¹⁵ and IBC¹⁶ code

Not applicable

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15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/laws specific to the substance or mixture:

National instructions

This safety data sheet has been classified according to the procedures and principles stipulated in the "Regulation on Classification, Labeling and Packaging of Substances and Mixtures" and "Turkish legislation", as well as the Safety Data Sheet received from the supplier and/or the test report of an accredited GLP Laboratory according to the criteria of the United Nations Tests and Criteria Manual. Republic of Türkiye Ministry of Environment and Urbanization, "Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals" dated 23.06.2017 and numbered OG 30105 Republic of Türkiye Ministry of Environment and Urbanization, "Regulation on Classification, Labeling and Packaging of Substances and Mixtures" dated 11.12.2013 and numbered 28848 Republic of Türkiye Ministry of Environment and Urbanization, Waste Management Regulation dated 2 April 2015 and numbered 29314.

Republic of Türkiye Ministry of Labor and Social Security, Regulation on Health and Safety Measures in Working with Chemical Substances, dated August 12, 2013, numbered 28733.

Ministry of Labor and Social Security of the Republic of Türkiye, Regulation on the Use of Personal Protective Equipment in Workplaces, dated July 2, 2013, numbered 28695.

Republic of Türkiye Ministry of Labor and Social Security, Occupational Health and Safety Law No. 6331 dated June 30, 2012.

Regulation on the Transportation of Hazardous Substances by Road of the Republic of Türkiye Ministry of Transport and Infrastructure (O.G. 24.04.2019 -30754)

Compatible with the Regulations on Health and Safety Measures in Working with Carcinogenic and Mutagenic Substances of the Republic of Türkiye Ministry of Labor and Social Security.

15.2 Chemical Safety Assessment

For this product a chemical safety assessment was not carried out.

16. OTHER INFORMATION

16.1 Legal instruments

This document has been prepared and approved by accredited expert personnel, certified in accordance with 1272/2008/EC, ISO 11014:2009, within the framework of the "Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals" dated 23.06.2017 and numbered OG 30105 and as required by the regulation.

16.2 Prepared by the Safety Data Sheet

Özgür Emek İnanmaz

16.3 Contact person

Özgür Emek İnanmaz

16.4 Change Control

Ver:1.0 Review : 10.01.2025

16.5 Abbreviations and acronyms used in the safety data sheet

See endnotes

Recommendations for safe use of the substance/mixture

This Safety Data Sheet has been prepared based on test reports provided by the manufacturer. This document does not constitute a guarantee of product properties and is only valid for the specified product unless otherwise stated.

Key information source used to create this form: Regulations of the Ministry of Environment and Urbanization, European Chemicals Agency ECHA website, Supplier Safety Data Sheet, test reports. Training recommendations: Training of personnel on correct practices. Changes may only be made by qualified and authorized persons.

Other information: Estimate/classification SEA

Disclaimer: The information provided on this safety precautions sheet is given in good faith and to the best of our knowledge and information available at the time it is made. The supplier gives no assurance or warranty, express or implied, regarding the completeness or omission of the information provided herein and expressly disclaims any liability arising from reliance on this

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information. This safety data sheet is intended only as a guide for the safe use of the substance/mixture described herein by trained personnel.

¹ CAS No: Number provided by the Chemical Abstracts Service.

² EC No: Number given by the European Commission.

³ IUPAC Adı- Name of the substance given The International Union of Pure and Applied Chemistry.

⁴ OG: Official Gazette (Resmi Gazete)

⁵ PBT: Persistent, Bio-accumulative, Toxic

⁶ vPvB: very Persistent, very Bio-accumulative

⁷ CAS No: Number provided by the Chemical Abstracts Service.

⁸ EINECS No: European Inventory of Existing Commercial Chemical Substances number.

⁹ PBT: Persistent, Bio-accumulative, Toxic

¹⁰ vPvB: very Persistent, very Bio-accumulative

¹¹ UN Numarası: United Nations number, is a four-digit code used to identify hazardous materials and articles (such as explosives, flammable liquids, oxidizers, toxic liquids, etc.) in international trade and transport

¹² ADR/RID : (Accord Dangereux Routier) and RID (Regulations concerning the International Carriage of Dangerous Goods by Rail) are international agreements that regulate the transportation of dangerous goods by road and rail, respectively.

¹³ IMDG: The International Maritime Dangerous Goods Code

¹⁴ IATA: The International Air Transport Association.

¹⁵ MARPOL 73/78 EklI is part of the International Convention for the Prevention of Pollution from Ships (MARPOL). Annex II specifically addresses the control of pollution by noxious liquid substances (NLS) carried in bulk.

¹⁶ IBC Code: The International Bulk Chemical Code.