

Material Safety Data Sheet Rev 0

Section 1:	Product and company information
Product:	Precision Ground Flat Stock of tool steel grade no. 1.2379 – AISI D 2
	Solid product with ground or milled surface for various uses in the tool and die indus- try
Supplier:	Steel Service Krefeld (USA), Inc. 2109 West Market Street, Suite 152 Johnson City Washington County Tennessee 37604 USA Fon: +1-514-447-1671 info@steelservicekrefeld.com

Section 2: Potential Hazards

General Statement

REACH-Regulation EG 1907/2006 differentiates between "articles" and "substances". According to its definition Precision Ground Flat Stock is considered to be an article. REACH defines articles as follows:

An object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition. Any articles manufactured from this solid product will be generally classified as non- hazardous.

However, processing operations on the product like cutting, milling, grinding or processing in any other manner may create potentially hazardous dust or fumes which may be inhaled, swallowed or may come in contact with skin or eyes. The inhaling of dusts, fumes or mists generated during the different production processing steps may be dangerous to health. The product is usually slightly oil coated to protect it from rust.

Preventive measures

- Protective equipment shall be worn when required.
- Hand gloves should be worn when handling the products.

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- Eye and face protection should be worn when processing.
- Dust and/ or fumes which may eventually come up when processing should not be inhaled. Respiratory protection should be worn in any case of inadequate ventilation.

Section 3: Chemical composition

Components:

		CAS No.	Chemical composition
Fe	Iron	7439-89-6	Base
С	Carbon	7440-44-0	1.40 - 1.60%
Si	Silicon	7740-21-3	0.10-0.60%
Mn	Manganese	7439-96-5	0.10-0.60%
Р	Phosphorous	7723-14-0	0.00 - 0.03%
S	Sulphur	7704-34-9	0.00 - 0.03%
Cr	Chromium	7740-47-3	11.00 - 13.00%
V	Vanadium	7440-62-2	0.50 - 1.10%
Mo	Molybdenum	7440-33-7	0.70 - 1.20%

Trace elements may be existing in minute amounts. They are referred to as "trace" or "residual" elements and may exist in the raw materials used.

Section 4: First Aid Measures

A steel product like Precision Ground Flat Stock (Gauge Plate) is not likely to create any acute or chronic health effects. However, fumes or dust arising during cutting, milling or grinding may cause irritations, difficulty breathing or allergic skin reactions.

Description of first aid measures

Inhalation:	Move to fresh air and if condition will not improve consult a doctor.
Eye Contact:	in order to remove existing particles flush eye/s immediately with running water. Keep eyes wide open while rinsing. Consult a doctor if irritation will remain.
Skin Contact:	If any irritation will develop brush off excess dust and wash effected area with soap and water to remove any particles.
Ingestion:	Do not induce vomiting and consult a doctor if larger quantities have been ingested.

Indication of any immediate medical indication

No additional information available for this product.

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Section 5: Fire Fighting Measures

The product in nonflammable – no explosion hazard.

Section 6: Accidental Release Measures

No specialized clean up procedures needed.

Section 7: Handling and Storage

- Handling: Avoid sharp edges or heated material and avoid dust particles during the machining processes.
- Storage: No special storage requirements needed

Section 8: Limitation and Monitoring of Exposure/ Personal Protection Measures

During any machining processes of the product a good ventilation is recommended to keep airborne concentration of dust and fumes at acceptable levels.

Eye and Face Protection:	Wear safety glasses during cutting, milling or grinding operations. Use face shields when welding or burning.
Hand Protection:	Wear gloves when handling sharp edges of the product.
Respiratory Protection:	Wear approved dust/ mist/ fume respirator during welding or burn- ing operations on the product (FFP 2 or FFP 3 EN 149).
Other Protective Equipment:	Use appropriate protective clothing as required such as fire retardant clothes or aprons during welding or burning processes.

Section 9: Physical and Chemical Properties

Information about basic physical and chemical properties of the product

Appearance: Odor:		solid product with metallic surface odorless
Odor threshold:		not applicable
Vapor pressure:		not applicable
Vapor density:		not applicable
Melting point:		1.530°C
Boiling point:		not applicable
Solubility:		not soluble
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Flash point:	not applicable
Evaporation rate:	not applicable
Flammability:	nonflammable
Explosive limits:	not applicable
Relative density:	7.85
Partition coefficient:	no data available
Auto-ignition temperature:	no data available
Decomposition temperature:	no data available

Additional information

Above values are typical values and are not considered a specification.

Section 10: Stability and Reactivity

Reactivity/ Stability:	stable product under normal storage conditions
Possibility of hazardous reactions:	will not occur
Incompatible products:	strong acids
Hazardous decomposition products:	not applicable

Section 11: Toxicological Information

Lethal Dose/ Concentration:	none established
Mutagenicity:	not applicable
Teratogenicity:	not applicable
Reproductive effects:	not applicable
Carcinogenic:	no data about carcinogenic of the product available. However, fumes, mists or dusts generated by processing the product may be carcinogenic if inhaled over a longer period of time.

Section 12: Ecological Information

No adverse ecological effects known.

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Section 13: Disposal Considerations

Recyclable scrap may be disposed by scrap dealers. Non-recyclable scrap to be disposed according to local, state and/ or federal regulations.

Section 14: Transport Information

There are no regulations – special transport instructions don't exist.

Section 15: Regulatory Information

As mentioned in the General Statement the product is not hazardous according to the definition of REACH 1907/ 2006. However, fumes and dusts generated while processing the product may be hazardous and require protection to comply with different applicable laws and regulations.