

# SAFETY DATA SHEET



## Enhanced Machinability Steels

Date of issue: 12<sup>th</sup> December 2022  
Date of First Issue: 30<sup>th</sup> June 2021  
Version 2.0

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2020/878.

### 1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

<b>1.1 Product Identifier</b>	
Product Name	Enhanced Machinability Steels
Trade Names	Free cutting steels, leaded steels
Product Code	Not applicable
Unique Formula Identifier (UFI)	Not applicable
Nanoform	Not applicable
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>	
Identified use(s)	Construction, automotive, energy/power, transport, defence and security, engineering, consumer products, lifting and excavating and packaging.
Uses advised against	Anything other than the above.
<b>1.3 Details of the supplier of the safety data sheet</b>	
<b>Company Identification</b>	Speciality Steel UK Ltd T/A Liberty Speciality Steels 7 Fox Valley Way Stocksbridge, Sheffield, S36 2JA
Telephone	+44 (0) 114 2882361
E-mail (competent person)	contactus@specialityuk.com
<b>1.4 Emergency Telephone Number</b>	
Emergency Phone No.	+44 (0)1709 826 500
Language(s) spoken:	English

### 2. SECTION 2: HAZARDS IDENTIFICATION

<b>2.1 Classification of the substance or mixture</b>	
<b>Regulation (EC) No. 1272/2008 (CLP)</b>	This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2020/878. Since this material has no intended release of a substance and will not result in exposure to a hazardous chemical under normal conditions of use, no hazard classification or Safety Data Sheet is required. An SDS has been provided for supply chain communication purposes and handling / storage recommendations only
<b>2.2 Label elements</b>	According to Regulation (EC) No. 1272/2008 (CLP)
Product name	Enhanced Machinability Steels
Contains:	Not applicable
Hazard Pictogram(s)	Not applicable.
Signal Word(s)	Not applicable.
Hazard Statement(s)	Not applicable.
Precautionary Statement(s)	Not applicable.
Supplemental information	Not applicable
<b>2.3 Other hazards</b>	Pre-finished steel can have sharp edges and corners, and relevant precautions should be taken when handling and storing. Under normal conditions of use and storage these materials are stable and non-toxic. Some steels may be coated with a non-dangerous oil, prolonged exposure to which may give rise to skin irritation

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### 3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.2 Mixtures

EC Classification Regulation (EC) No. 1272/2008 (CLP)

Chemical identity of the substance	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Statement(s)
Lead *	< 1	7439-92-1	231-100-4	Not yet assigned in the supply chain	Repr. 1A; H360 Lact.; H362 STOT RE 1; H372

#### Specific concentration limit (SCL) & M-factor

Chemical identity of the substance	CAS No.	EC No.	Specific concentration limit (SCL)	M-factor
Lead *	7439-92-1	231-100-4	Repr. 1A; H360FD: C ≥ 0.03 %	Not applicable

Note: For full text of H phrases see section 16. \*Substance(s) of Very High Concern (SVHCs)  
An SDS has been provided for supply chain communication purposes and handling / storage recommendations only.

### 4. SECTION 4: FIRST AID MEASURES



#### 4.1 Description of first aid measures

##### Self-protection of the first aider

Inhalation

Skin contact

Eye contact

Ingestion

#### 4.2 Most important symptoms and effects, both acute and delayed

#### 4.3 Indication of any immediate medical attention and special treatment needed

No special precautions are required for this product.

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Dusts: Remove person to fresh air and keep comfortable for breathing. If exposed or concerned: Get medical attention/advice. If skin irritation occurs, get medical advice/attention. Dusts: Mechanical irritation of the skin and eyes. Wash skin with water. If irritation (redness, rash, blistering) develops, get medical attention.

Remove contact lenses, if present and easy to do. Continue rinsing. Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. If irritation develops and persists, get medical attention.

Give plenty of water to drink. Get medical advice/attention if you feel unwell.

None anticipated. Machining and hot work may create dust.

No information available. Treat symptomatically.

### 5. SECTION 5: FIREFIGHTING MEASURES

#### 5.1 Extinguishing media

Suitable extinguishing media

Unsuitable extinguishing media

#### 5.2 Special hazards arising from the substance or mixture

#### 5.3 Advice for firefighters

Steel is non-flammable and has a melting point of >1 000 °C.

None

None

None

### 6. SECTION 6: ACCIDENTAL RELEASE MEASURES

#### 6.1 Personal precautions, protective equipment and emergency procedures

#### 6.2 Environmental precautions

Product is sold in solid massive form and an accidental spill could not occur

None

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- 6.3 **Methods and material for containment and cleaning up** None
- 6.4 **Reference to other sections** See Section: 8, 13

### 7. SECTION 7: HANDLING AND STORAGE

- 7.1 **Precautions for safe handling** Enhanced machinable steels are sold in many forms, sheet, coils, sections, tube, pipe, plate or as semi-finished products. Care should be taken when handling, as there may be sharp edges present. Where required the use of hard wearing (protective) gloves and overalls should be used to prevent cuts and abrasions. Care should be taken when lifting heavy loads and, where necessary, use appropriate lifting equipment to do so. Coil bundles may be secured by banding straps, which may have been fitted under tension so care should be taken when removing them. Steel products should never be lifted by retaining straps or bands since these may snap and release the load during lifting.
- 7.2 **Conditions for safe storage, including any incompatibilities** Some products may be secured by using straps or bands, which could cause injury to eyes or other injuries when tension is released. There may be sharp edges present, which could cause lacerations. Store in an appropriate facility to prevent damage, use suitable racks or storage pallets. Lifting should always be carried out in a way that prevents injury to operators or damage to the lifting equipment.
- Storage temperature Ambient temperatures.
- Incompatible materials None known.
- 7.3 **Specific end use(s)** See Section: 1.2.

### 8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 **Control parameters**
- 8.1.1 **Occupational exposure limits** The UK HSE (EH40) recommends the following limits for dusts: 10 mg/m<sup>3</sup> (8hr TWA) total inhalable dust; 4 mg/m<sup>3</sup> (8hr TWA) total respirable dust.

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m <sup>3</sup> )	STEL (ppm)	STEL (mg/m <sup>3</sup> )	Note
Manganese	7439-96-5	-	0.2	-	-	UK WEL Inhalable fraction
		-	0.05	-	-	Respirable fraction
Nickel	7440-02-0	-	0.5	-	-	UK WEL
Copper and compounds; dust and mists	-	0.2	-	-	-	UK WEL
Molybdenum	7439-98-7	-	5	-	10	UK WEL Soluble compounds
		-	10	-	20	Insoluble compounds
Lead	7439-92-1	-	0.15	-	-	UK WEL
Inorganic lead and its compounds	-	-	0.15	0.15	0.15	UK WEL

Source: UK WEL: Workplace Exposure Limit (UK HSE EH40); IOELV: Indicative Occupational Exposure Limit Value

#### Note

Chemicals listed in Section 8 but not in Section 3 are not hazardous and do not impact the final mixture classification.

Carc. - Capable of causing cancer and/or heritable genetic damage.

#### 8.1.2 Biological limit value

**United Kingdom: The Control of Lead at Work Regulations SI 2002/2676**

In accordance with SI 2002/2676: 2. (1) In these Regulations: "action level" means a blood-lead concentration of:

(a) in respect of a woman of reproductive capacity, 25 µg/dl;

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(b) in respect of a young person, 40 µg/dl; or  
(c) in respect of any other employee, 50 µg/dl

Substance	CAS No.	Biological limit value	Biological Guidance Value	Note
Lead	7439-92-1	30 µg / 100 ml	-	SCOEL

Source: SCOEL - Scientific Committee on Occupational Exposure Limits (2014) EU Commission Decision 2014/113/EU.

- 8.1.3 PNECs and DNELs** Not established.
- 8.2 Exposure controls**
- 8.2.1 Appropriate engineering controls** If hot work activities, such as welding or burning, or mechanical abrasion are to take place local exhaust ventilation (LEV) should be used to remove any fume/dust produced:
- 8.2.2 Individual protection measures, such as personal protective equipment** Keep good industrial hygiene. Wear appropriate personal protective equipment, avoid direct contact. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke at the work place.  
Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- Eye/ face protection** Use suitable eye protection.  

- Skin protection** Wear protective gloves.  

- Respiratory protection** Ori-nasal respirators fitted with a P3 filter (EN149: FFP3S) should be used when welding or burning, or when grinding.  

- Thermal hazards** Not applicable
- 8.2.3 Environmental exposure controls** Avoid release to the environment.

## 9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Physical state	Solid - Article with no intended release
Colour	Steel
Odour	None - Article with no intended release
Melting point/freezing point	1 450-1 520 °C at 1 013 hPa (steel)
Boiling point or initial boiling point and boiling range	Not applicable - Article with no intended release
Flammability	Not applicable - Article with no intended release
Lower and upper explosion limit	Not applicable - Article with no intended release
Flash point	Not applicable - Article with no intended release
Auto-ignition temperature	Not applicable - Article with no intended release
Decomposition temperature	Not applicable - Article with no intended release
pH	Not applicable - Article with no intended release
Kinematic viscosity	Not applicable - Article with no intended release

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Solubility	Not applicable - Article with no intended release
Partition coefficient: n-octanol/water (log value)	Not applicable - Article with no intended release
Vapour pressure	Not applicable - Article with no intended release
Density and/or relative density	7.85 kg/dm <sup>3</sup> at 20°C - Article with no intended release
Relative vapour density	Not applicable - Article with no intended release
Particle characteristics	No data available

9.2 Other information None known

### 10. SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity	Stable under normal conditions.
10.2 Chemical stability	Stable under normal conditions.
10.3 Possibility of hazardous reactions	Hazardous polymerisation will not occur.
10.4 Conditions to avoid	In contact with strong acids, steels may release gaseous acid decomposition products (e.g. hydrogen, oxides of nitrogen) and metals will be dissolved in the acid. For chromium-containing steels, contact with strong oxidising agents at high pH (e.g. alkaline cleaners at pH 10-14) may result in the formation of Cr (IV) compounds at ambient temperatures.
10.5 Incompatible materials	Avoid contact with acids and alkalis.
10.6 Hazardous decomposition products	None known

### 11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008	This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2020/878. This product contains known "substances of very high concern" (SVHC's). An SDS has been provided for supply chain communication purposes and handling / storage recommendations only.
Acute toxicity – Ingestion	Based upon the available data, the classification criteria are not met.
Acute toxicity - Inhalation	Based upon the available data, the classification criteria are not met.
Acute toxicity - Skin contact	Based upon the available data, the classification criteria are not met.
Skin corrosion/irritation	Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Based upon the available data, the classification criteria are not met.
Respiratory or skin sensitisation	Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Based upon the available data, the classification criteria are not met.
Carcinogenicity	Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Based upon the available data, the classification criteria are not met.
STOT - Single Exposure	Lead: Repr. 1A; H360FD Harmonised Classification NOAEL: 250 ml/l Drinking water (Unnamed, 1984) Based upon the available data, the classification criteria are not met.
STOT - Repeated Exposure	Based upon the available data, the classification criteria are not met. Lead: STOT RE 1; H372: Causes damage to organs through prolonged or repeated exposure. Oral: LOAEL 200ppm (rat) Based upon the available data, the classification criteria are not met.
Aspiration hazard	Based upon the available data, the classification criteria are not met.
11.2 Information on other hazards	
11.2.1 Endocrine disrupting properties	This substance does not have endocrine disrupting properties with respect to humans.
11.2.2 Other information	None

### 12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity	Based upon the available data, the classification criteria are not met.
12.2 Persistence and degradability	No information available. Lead: Not applicable for inorganic substances
12.3 Bioaccumulative potential	No information available. Lead: The substance has high potential for bioaccumulation. BCF 40000 (dry wt)

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12.4	<b>Mobility in soil</b>	No information available.
12.5	<b>Results of PBT and vPvB assessment</b>	Lead: The substance is predicted to have moderate mobility in soil. Partially soluble None of the substances in this product fulfil the criteria for being regarded as a PBT or vPvB substance.
12.6	<b>Endocrine disrupting properties</b>	This substance does not have endocrine disrupting properties with respect to non-target organisms.
12.7	<b>Other adverse effects</b>	No information available

### 13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1	<b>Waste treatment methods</b>	Steel products are 100% recyclable and should be recycled at "end of life" in all situations
	Waste classification according to Directive 2008/98/EC (Waste Framework Directive)	Not applicable

### 14. SECTION 14: TRANSPORT INFORMATION

This product is regarded as the article and this product is physically and chemically stable under normal conditions. Thus, this product is not regarded as dangerous goods under UN transport regulations.

	<b>ADR/RID</b>	<b>ADN</b>	<b>IMDG</b>	<b>IATA/ICAO</b>
14.1	<b>UN number or ID number</b>	Not applicable.	Not applicable.	Not applicable.
14.2	<b>UN proper shipping name</b>	Not applicable.	Not applicable.	Not applicable.
14.3	<b>Transport hazard class(es)</b>	Not applicable.	Not applicable.	Not applicable.
14.4	<b>Packing group</b>	Not applicable.	Not applicable.	Not applicable.
	Hazard label(s) (UN)	Not applicable.	Not applicable.	Not applicable.
14.5	<b>Environmental hazards</b>	Not applicable.	Not applicable.	Not applicable.
14.6	<b>Special precautions for user</b>	Not applicable.	Not applicable.	Not applicable.
14.7	<b>Maritime transport in bulk according to IMO instruments</b>	Not applicable.	Not applicable.	Not applicable.
14.8	<b>Additional information</b>			
	Hazard Identification Number (Kemler Code)	Not applicable.		
	Classification code: UN	Not applicable.		
	Orange plates	Not applicable.		
	Special Provisions	Not applicable.		
	ADR Transport Category	Not applicable.		
	Tunnel Restriction Code	Not applicable.		
	Limited Quantity (ADR)	Not applicable.		
	Excepted quantities (ADR)	Not applicable.		
	EAC code	Not applicable.		

### 15. SECTION 15: REGULATORY INFORMATION

15.1	<b>Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
15.1.1	<b>EU regulations</b>	Lead concentrations in electrical equipment are controlled by Directive 2002/95/EC (commonly referred to as the Restriction of Hazardous Substances Directive or RoHS) and recast Directive 2011/65/EU.
	Authorisations and/or restrictions on use	For professional users only. Lead: Entry 30: Restriction on supply of substances and mixtures to the general public, if classified as Repr. 1A or 1B Entry number: 63. REACH: ANNEX XVII restrictions on the manufacture, placing on the market and use of certain dangerous substances, preparations and articles Lead: Substance included on the Candidate List as of 27/06/2018. Reason for inclusion: Toxicity for reproduction (Article 57c)
	Substance(s) of Very High Concern (SVHCs)	

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### 15.1.2 National regulations

United Kingdom

The Control of Lead at Work Regulations (2002)

### 15.2 Chemical Safety Assessment

A chemical safety assessment is not required under REACH.

## 16. SECTION 16: OTHER INFORMATION

**The following sections contain revisions or new statements:** New SDS Regulation 2020/878 format, all sections have been updated to include new information. Please review SDS with care.

**References:** Safety Data Sheets for ingoing ingredients. Regulation (EC) No. 1272/2008 (CLP). REACH Regulation (EC) No. 1907/2006.

**Hazard classification:** This material is produced as an "article" as defined in Regulation (EC) No 1907/2006 (REACH Regulation) and is therefore exempt from CLP 1272/2008 and SDS regulation 2020/878.

EU Classification: This Safety Data Sheet was prepared in accordance with EC Regulation (EC) 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

### Legend

ADR	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived no effect level
EU	European Union
HSE	Health and Safety Executive
IATA	IATA: International Air Transport Association
ICAO	ICAO: International Civil Aviation Organization
IMDG	IMDG: International Maritime Dangerous Goods
LTEL	Long term exposure limit
OEL	Occupational exposure limits
PBT	PBT: Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	RID: Regulations concerning the international railway transport of dangerous goods
STEL	Short term exposure limit
TWA	Time Weighted Average
vPvB	vPvB: very Persistent and very Bioaccumulative

### Hazard classification / Classification code:

Repr. 1A; Reproductive toxicity, Category 1A  
Lact.; Effects on or via lactation  
STOT RE 1; Specific target organ toxicity — repeated exposure,  
Category 1

### Hazard Statement(s)

H360FD: May damage fertility. May damage the unborn child.  
H362: May cause harm to breast-fed children.  
H372: Causes damage to organs through prolonged or repeated exposure.

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

### Disclaimers

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