

# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**Product Name:** FLUXO S190

### Other means of identification

**SDS number:** 200000016021

**UFI:** 9DM8-X211-HN90-H0EF

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

**Identified uses:** Reserved for industrial and professional use.

**Uses advised against:** Not known. Read this SDS before using this product.

### 1.3 Details of the supplier of the safety data sheet

#### Manufacturer/Importer/Supplier/Distributor Information

**Company Name:** Lincoln Electric Europe B.V.

**Address:** Collse Heide 12  
Nuenen 5674 VN  
The Netherlands

**Telephone:** +31 243 522 911

**Contact Person:** Safety Data Sheet Questions: [www.lincolnelectric.com/sds](http://www.lincolnelectric.com/sds)  
Arc Welding Safety Information: [www.lincolnelectric.com/safety](http://www.lincolnelectric.com/safety)

### 1.4 Emergency telephone number:

USA/Canada/Mexico +1 (888) 609-1762

Americas/Europe +1 (216) 383-8962

Asia Pacific +1 (216) 383-8966

Middle East/Africa +1 (216) 383-8969

**3E Company Access Code:** 333988

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

#### Physical Hazards

Aerosol Category 1 H222 H229

#### Health Hazards

Skin irritation Category 2 H315

Specific Target Organ Toxicity - Category 3 H336

Single Exposure

#### Environmental Hazards

Chronic hazards to the aquatic environment      Category 2      H411

## 2.2 Label Elements

**Contains:** Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics



**Signal Word:** Danger

**Hazard Statement(s):** H222: Extremely flammable aerosol.  
H229: Pressurized container: May burst if heated.  
H315: Causes skin irritation.  
H336: May cause drowsiness or dizziness.  
H411: Toxic to aquatic life with long lasting effects.

### Precautionary Statements

**Prevention:** P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P211: Do not spray on an open flame or other ignition source.  
P251: Do not pierce or burn, even after use.  
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264: Wash face, hands and any exposed skin thoroughly after handling.  
P273: Avoid release to the environment.  
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:** P302+P352: IF ON SKIN: Wash with plenty of soap and water.  
P362+P364: Take off contaminated clothing and wash it before reuse.  
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.  
P391: Collect spillage.

**Storage:** P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.

### Supplemental label information

Do not spray on a naked flame or any other incandescent material.  
Pressurized container: protect from sunlight and do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use.

**2.3 Other hazards**      No data available.

## SECTION 3: Composition/information on ingredients

### Reportable Hazardous Ingredients

### 3.2 Mixtures

Chemical name	Concentration	CAS-No.	EC No.	Classification	Notes	REACH Registration No.
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	50 - <100%	64742-49-0	927-510-4	Flam. Liq.: 2: H225; Skin Corr.: 2: H315; STOT SE: 3: H336; Asp. Tox.: 1: H304; Aquatic Chronic: 2: H411;		01-2119475515-33;
Propane	10 - <20%	74-98-6	200-827-9	Press. Gas: Compr. Gas: H280; Flam. Gas: 1: H220;	#	01-2119486944-21;
Butane	10 - <20%	106-97-8	203-448-7	Press. Gas: Compr. Gas: H280; Flam. Gas: 1: H220;	#	01-2119474691-32;

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

# This substance has workplace exposure limit(s).

## This substance is listed as SVHC

CLP: Regulation No. 1272/2008.

The full text for all H-statements is displayed in section 16.

#### Composition Comments:

The term "Hazardous Ingredients" should be interpreted as a term defined in Hazard Communication standards and does not necessarily imply the existence of a welding or allied process hazard. The product may contain additional non-hazardous ingredients or may form additional compounds under the condition of use. Refer to Sections 2 and 8 for more information.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**Inhalation:** Move to fresh air if breathing is difficult. If breathing has stopped, perform artificial respiration and obtain medical assistance at once.

**Skin Contact:** Remove contaminated clothing and wash the skin thoroughly with soap and water. For reddened or blistered skin, or thermal burns, obtain medical assistance at once.

**Eye contact:** Do not rub eye. Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

**Ingestion:** Rinse mouth thoroughly.

**4.2 Most important symptoms and effects, both acute and delayed:** Symptoms may be delayed.

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

**Hazards:** No information about adverse effects due to exposure.

**Treatment:** Treat symptomatically.

### SECTION 5: Firefighting measures

<b>General Fire Hazards:</b>	No unusual fire or explosion hazards noted.
<b>5.1 Extinguishing media</b>	
<b>Suitable extinguishing media:</b>	Use fire-extinguishing media appropriate for surrounding materials.
<b>Unsuitable extinguishing media:</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>5.2 Special hazards arising from the substance or mixture:</b>	During fire, gases hazardous to health may be formed.
<b>5.3 Advice for firefighters</b>	
<b>Special fire-fighting procedures:</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>Special protective equipment for fire-fighters:</b>	Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace. Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

### SECTION 6: Accidental release measures

<b>6.1 Personal precautions, protective equipment and emergency procedures:</b>	If airborne dust and/or fume is present, use adequate engineering controls and, if needed, personal protection to prevent overexposure. Refer to recommendations in Section 8.
<b>6.2 Environmental Precautions:</b>	Avoid release to the environment. Prevent further leakage or spillage if safe to do so.
<b>6.3 Methods and material for containment and cleaning up:</b>	Absorb with sand or other inert absorbent. Stop the flow of material, if this is without risk. Clean up spills immediately, observing precautions in the personal protective equipment in Section 8. Avoid generating dust. Prevent product from entering any drains, sewers or water sources. Refer to Section 13 for proper disposal.
<b>6.4 Reference to other sections:</b>	No data available.

### SECTION 7: Handling and storage:

<b>7.1 Precautions for safe handling:</b>	Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
<b>7.2 Conditions for safe storage, including any incompatibilities:</b>	Store in closed original container in a dry place. Store in accordance with local/regional/national regulations. Store away from incompatible materials.

**7.3 Specific end use(s):** No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

MAC, PEL, TLV and other exposure limit values may vary per element and form - as well as per country. All country-specific values are not listed. If no occupational exposure limit values are listed below, your local authority may still have applicable values. Refer to your local or national exposure limit values.

#### Control Parameters

##### Occupational Exposure Limits: EU & Great Britain

Chemical Identity	Type	Exposure Limit Values	Source
Propane	MAK	1.000 ppm 1.800 mg/m3	Germany. DFG MAK List (advisory OELs). Commission for the Investigation of Health Hazards of Chemical Compounds in the Work Area (DFG), as amended (07 2010)
Butane	TWA	600 ppm 1.450 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (2007)
	STEL	750 ppm 1.810 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (01 2020)
	TWA	600 ppm 1.450 mg/m3	UK. EH40 Workplace Exposure Limits (WELs) (2007)

##### Biological Limit Values: EU & Great Britain

None of the components have assigned exposure limits.

##### Biological Limit Values: ACGIH

None of the components have assigned exposure limits.

### 8.2 Exposure controls

#### Appropriate Engineering Controls

Observe Occupational Exposure Limits and minimize the risk of inhalation.

#### Individual protection measures, such as personal protective equipment

##### General information:

Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.

##### Eye/face protection:

Wear goggles/face shield.

##### Skin protection

##### Hand Protection:

Wear protective gloves. Suitable gloves can be recommended by the glove supplier.

##### Other:

No data available.

##### Respiratory Protection:

In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

**Hygiene measures:** Do not eat, drink or smoke when using the product. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Appearance:</b>	No data available.
<b>Physical state:</b>	Gas
<b>Form:</b>	Spray Aerosol
<b>Color:</b>	Colourless
<b>Odor:</b>	No data available.
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	Not applicable
<b>Melting Point:</b>	No data available.
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	-4 °C
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	Flammable aerosol.
<b>Flammability Limit - Upper (%):</b>	6,7 %(V)
<b>Flammability Limit - Lower (%):</b>	1 %(V)
<b>Vapor pressure:</b>	No data available.
<b>Relative vapor density:</b>	No data available.
<b>Density:</b>	No data available.
<b>Relative density:</b>	No data available.
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	No data available.
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Auto-ignition temperature:</b>	No data available.
<b>Decomposition Temperature:</b>	No data available.
<b>SADT:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

### 9.2 Other information

**VOC Content:** Not available.

**Bulk density:** Not available.

**Dust Explosion Limit, Upper:** Not available.

**Dust Explosion Limit, Lower:** Not available.

<b>Dust Explosion Description Number</b>	Not available.
<b>Kst:</b>	
<b>Minimum ignition energy:</b>	Not available.
<b>Minimum ignition temperature:</b>	Not available.
<b>Metal Corrosion:</b>	Not available.

## SECTION 10: Stability and reactivity

<b>10.1 Reactivity:</b>	The product is non-reactive under normal conditions of use, storage and transport.
<b>10.2 Chemical Stability:</b>	Material is stable under normal conditions.
<b>10.3 Possibility of hazardous reactions:</b>	None under normal conditions.
<b>10.4 Conditions to avoid:</b>	Avoid heat or contamination.
<b>10.5 Incompatible Materials:</b>	Strong acids. Strong oxidizing substances. Strong bases.
<b>10.6 Hazardous Decomposition Products:</b>	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

## SECTION 11: Toxicological information

### Information on likely routes of exposure

<b>Inhalation:</b>	Inhalation is the primary route of exposure. In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
<b>Skin Contact:</b>	Moderately irritating to skin with prolonged exposure.
<b>Eye contact:</b>	Eye contact is possible and should be avoided.
<b>Ingestion:</b>	Health injuries from ingestion are not known or expected under normal use.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Inhalation:</b>	No data available.
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### 11.1 Information on toxicological effects

#### Acute toxicity (list all possible routes of exposure)

##### Oral

<b>Product:</b>	Not classified for acute toxicity based on available data.
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##### Dermal

<b>Product:</b>	Not classified for acute toxicity based on available data.
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##### Inhalation

<b>Product:</b>	Not classified for acute toxicity based on available data.
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##### Specified substance(s):

Butane	LC 50 (Rat, 4 h): 658 mg/l
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**Repeated dose toxicity**

**Product:** No data available.

**Skin Corrosion/Irritation**

**Product:** No data available.

**Serious Eye Damage/Eye Irritation**

**Product:** Not classified

**Respiratory or Skin Sensitization**

**Product:** Respiratory Sensitization: Not classified  
Skin Sensitization: Not classified

**Carcinogenicity**

**Product:** Not classified

**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

**Germ Cell Mutagenicity**

**In vitro**

**Product:** Not classified

**In vivo**

**Product:** Not classified

**Reproductive toxicity**

**Product:** Not classified

**Specific Target Organ Toxicity - Single Exposure**

**Product:** May cause respiratory irritation.

**Specific Target Organ Toxicity - Repeated Exposure**

**Product:** Not classified

**Aspiration Hazard**

**Product:** No data available.

**11.2 Information on other hazards**

**Endocrine disrupting properties**

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.;

**Other information**

**Product:** No data available.

**SECTION 12: Ecological information**

**12.1 Ecotoxicity**

**Acute hazards to the aquatic environment:**

**Fish**

**Product:** Not classified

**Aquatic Invertebrates**

**Product:** Not classified

**Chronic hazards to the aquatic environment:**

**Fish**

**Product:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Aquatic Invertebrates**

**Product:** Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Toxicity to Aquatic Plants**

**Product:** No data available.

**12.2 Persistence and Degradability**

**Biodegradation**

**Product:** No data available.

**12.3 Bioaccumulative potential**

**Bioconcentration Factor (BCF)**

**Product:** No data available.

**12.4 Mobility in soil:**

No data available.

**12.5 Results of PBT and vPvB assessment:**

**Product:** No data available.

**12.6 Endocrine disrupting properties:**

**Product:** The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

**12.7 Other adverse effects:**

**Other hazards**

**Product:** No data available.

**SECTION 13: Disposal considerations**

**13.1 Waste treatment methods**

**General information:** Dispose of waste and residues in accordance with local authority requirements.

**Disposal instructions:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

**Contaminated Packaging:** Dispose of contents/container to an appropriate treatment and disposal

facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

**SECTION 14: Transport information****ADR**

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name:	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2
Label(s):	2.1
Hazard No. (ADR):	–
Tunnel restriction code:	(D)
14.4 Packing Group:	–
Limited quantity	1,00L
Excepted quantity	E0
14.5 Marine Pollutant	No
14.6 Special precautions for user:	None.

**ADN**

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name:	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2
Label(s):	2.1
Hazard No. (ADR):	–
14.4 Packing Group:	–
Limited quantity	1,00L
Excepted quantity	E0
14.5 Marine Pollutant	No
14.6 Special precautions for user:	None.

**RID**

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2
Label(s):	2.1
14.4 Packing Group:	–
14.5 Marine Pollutant	No
14.6 Special precautions for user:	None.

**IMDG**

14.1 UN number or ID number:	UN 1950
14.2 UN Proper Shipping Name:	AEROSOLS
14.3 Transport Hazard Class(es)	
Class:	2.1
Label(s):	2.1
EmS No.:	ERG 126,
14.4 Packing Group:	–
Limited quantity	
Excepted quantity	E0

14.5 Marine Pollutant: No  
14.6 Special precautions for user: None.

**IATA**

14.1 UN number or ID number: UN 1950  
14.2 Proper Shipping Name: Aerosols, flammable  
14.3 Transport Hazard Class(es):  
Class: 2.1  
Label(s): 2.1  
14.4 Packing Group: –  
Cargo aircraft only : 203  
Passenger and cargo aircraft : 203  
Limited quantity: Y203  
Excepted quantity: E0  
14.5 Marine Pollutant: No  
14.6 Special precautions for user: None.  
Cargo aircraft only: Allowed.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code:** Not applicable

**SECTION 15: Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:**

**EU Regulations**

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex I, Controlled Substances:** None

**Regulation 1005/2009/EC on substances that deplete the ozone layer, Annex II, New Substances:** None

**EU. REACH Annex XIV, Substances Subject to Authorization:** None

EU. Regulation 2019/1021/EU on persistent organic pollutants (POPs) (recast), as amended: None

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 1 as amended:** None

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 2 as amended:** None

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex I, Part 3 as amended:** None

**Regulation (EU) No. 649/2012 concerning the export and import of dangerous chemicals, Annex V as amended:** None

EU. REACH Candidate List of Substances of Very High Concern for Authorization (SVHC): None

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

Chemical name	CAS-No.	Concentration
Propane	74-98-6	10 - 20%

Butane	106-97-8	10 - 20%
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**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** None

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** None

EU. Directive 2012/18/EU (SEVESO III) on major accident hazards involving dangerous substances, Annex I:

Classification	Lower-tier Requirements	Upper-tier Requirements
P3a. Flammable aerosols	150 t	500 t
E2. Hazardous to the aquatic environment	200 t	500 t

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:** None

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**

Chemical name	CAS-No.	Concentration
Propane	74-98-6	10 - 20%
Butane	106-97-8	10 - 20%

#### National Regulations

**Water Hazard Class (WGK):** WGK 3: severely water-endangering.

#### INRS, maladies professionnelles, table of work-related illnesses

Listed: 84  
16

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

#### International regulations

### Inventory Status:

Canada DSL Inventory List:	On or in compliance with the inventory
Canada NDSL Inventory:	One or more components are not listed or are exempt from listing.
Ontario Inventory:	On or in compliance with the inventory
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Japan (ENCS) List:	On or in compliance with the inventory
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	One or more components are not listed or are exempt from listing.
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Mexico INSQ:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Philippines PICCS:	On or in compliance with the inventory
Taiwan Chemical Substance Inventory:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
EINECS, ELINCS or NLP:	On or in compliance with the inventory
Australia AICS:	One or more components are not listed or are exempt from listing.

#### Montreal protocol

Not applicable

#### Stockholm convention

Not applicable

#### Rotterdam convention

Not applicable

#### Kyoto protocol

Not applicable

## SECTION 16: Other information

### Definitions:

#### References

PBT  
vPvB

PBT: persistent, bioaccumulative and toxic substance.  
vPvB: very persistent and very bioaccumulative substance.

#### Key literature references and sources for data:

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended.

#### Wording of the H-statements in section 2 and 3

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H225	Highly flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

Aerosol 1, H222  
Skin Irrit. 2, H315  
STOT SE 3, H336  
Aquatic Chronic 2, H411

**Other information:** Additional information is available by request.

**Issue Date:** 06.09.2024

**Disclaimer:** The Lincoln Electric Company urges each end user and recipient of this SDS to study it carefully. See also [www.lincolnelectric.com/safety](http://www.lincolnelectric.com/safety). If necessary, consult an industrial hygienist or other expert to understand this information and safeguard the environment and protect workers from potential hazards associated with the handling or use of this product. This information is believed to be accurate as of the revision date shown above. However, no warranty, expressed or implied, is given. Because the conditions or methods of use are beyond Lincoln Electric's control, we assume no liability resulting from the use of this product. Regulatory requirements are subject to change and may differ between various locations. Compliance with all applicable Federal, State, Provincial, and local laws and regulations remain the responsibility of the user.

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