

Material Safety Data Sheet

For welding consumables and related products
 Conforms to Workplace Hazardous Materials Information System (WHIMS) Rev. Nov. 1988
 May be used to comply with Osha's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.
 Maybe used to comply with **Council Directive 2006/121/EC** relating to the classification, packaging and labelling of dangerous substances.

1. Product and Company Identification**1.1 Product information****Product type:** solid wire electrode, high-alloyed**Product name:** **NFL 172 / 1.6356****1.2 Supplier:**LAWITEX GmbH
Hitdorfer Str. 10 c
40764 Langenfeld**2. Composition/Information on Ingredients****Description:** This product contains nickel, iron, cobalt and molybdenum.**Risky ingredients:**

CAS-Nr.	7440-02-0	136-52-7	7439-89-6	7439-98-7
Type of Ingredient:	Ni	Co	Fe	Mo
Ingredient [weight-%]:	>= 1	10-50 %	50-100 %	2,5-10 %
Danger icon	X ⁿ	A	not listed	not listed
Risk category:	R 40/43	R 45/5	not listed	not listed

3. Hazards Identification

Different kinds of fume and dust occur during the welding and grinding process. Nickel oxides might occur, which are classified as carcinogenic. In addition irritant substances such as fluorides and manganese oxides as well as fine dusts (mostly iron oxides) occur.

4. Emergency and first aid procedures

Remove from dust of fume exposure. If breathing has stopped perform artificial respiration. Summon medical aid immediately.

Inhalation:

If breathing is difficult, provide fresh air and call physician.

Skin contact:

For skin burns from arc radiation, see physician. Affected skin has to be washed carefully with soap.

Eye contact:

For radiation burns due to arc flash, see physician. Under flowing water wash out the wide opened eyelid

5. Fire fighting measures

not usable, the product is neither flammable nor explosive

possible fire extinguishing:

not usable

6. Accidental release measures**Release**

not usable

7. Handling and Storage**7.1 Handling**

Advise of precaution measures:

Avoid humidity and temperature Shocks. Keep separate from chemical Substances like acids which could cause Chemical reactions.

7.2 Storage

Standarts for stockrooms/container:

special standards for stockrooms/container do not exist

8. Exposure Controls/Personal Protection

8.1 **additional advises for technical machines** The measures under point 7.1 has to be taken into consideration

8.2 **Components with working place related limit Values which must be supervised**

Identification of Substance	CAS-No.	limit value
Nickel	7440-02-0	0,5 mg/m ³ (TRK) total weight
Nickel-oxide	1313-99-1	0,5 mg/m ³ (TRK) total weight
Molybdenum	7439-98-7	0,5 mg/m ³ (TRK) total weight
Cobalt	136-52-7	0,5 mg/ m ³ (TRK) total weight
Fluorides	-	6,0 mg/m ³ (TRK) total weight
Ozone	10028-15-6	0,2 mg/m ³ (TRK) total weight

8.3 **Personal safety equipment**

Respiratory, hand, eye,
 Safety and hyhienic protection follow UVV (VBG 15) §27
 in the workroom drinking or eating is not allowed to

9. Physical and Chemical Properties

manifestation: solid wire electrode, high-alloyed
 safety relevant data: not applicable

10. Stability and Reactivity

avoid contact with acids and bases
 Product is stable until 1200 C.

11. Toxicological Information

follow point 3

12. Ecological Information:

Welding consumables and materials could degrade/weather into components originating from the consumables or from the materials used in the welding process. Avoid exposure to conditions that could lead to accumulation in soils or groundwater.

13. Disposal Considerations

Waste Disposal Method:
 Prevent waste from contaminating the surrounding environment. Discard any product, residue, disposable, container or liner in an environmentally acceptable manner, in full compliance with federal, state and local regulations.

14. Transport Information

No international regulations or restrictions are applicable

15. Regulatory Information

15.1 registration mark not listed
 registration letter not listed
 Danger icon not listed
 Risk category not listed
 Security category not listed

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15.2 national regulations

Advice of working restrictions	not usable
Malfunction V:	not usable
classification about VbF:	not usable
technical instructions AIR:	1 mg/m ³ , to a stream > 5 g/h
Danger grade of water:	not expected
Other regulations:	not announced

16. Other information**literature:**

Unfallverhütungsvorschriften
(VBG 15) Schweißen Schneiden
und verwandte Verfahren
DVS-Merkblatt 1201: Absaugung
an Schweißarbeitsplätzen
DVS-Faltblätter zum Arbeitsschutz
beim Schweißen
DVS-Fachbuch Unterweisung von
Schweißern im Arbeitsschutz
Kraume, Zober: Arbeitssicherheit
und Gesundheitsschutz in der
Schweißtechnik