

Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 07/18/2014

Version number 3

Revision: 05/06/2014

1 Identification of the substance/mixture and of the company/undertaking

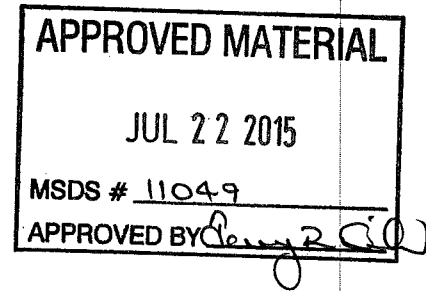
- **Product identifier**
- **Trade name: UTP 34 N**
- **Application of the substance / the mixture** electrodes for welding
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Boehler Welding Group, Canada Ltd.

1555 Bonhill Road, Unit 11
MISSISSAUGA, ONTARIO L5T 1Y5
CANADA

phone 1 905 564 0589
fax

Member of the BÖHLER-WELDING Group

- **Further information obtainable from:** QS department
- **Emergency telephone number:** Tel: +49 (0) 7633-409-151 (Mo - Do 8-17, Fr 8-13 Uhr)



1 905 564 2027

2 Hazards identification

- **Classification of the substance or mixture**
The product is not classified according to the Globally Harmonized System (GHS).
- **Label elements**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard-determining components of labelling:**
trisodium hexafluoroaluminate
sodium fluoride
- **Hazard statements** Void
- **Hazard description:**
- **Canadian Hazard Symbols**
D2A - Very toxic material causing other toxic effects

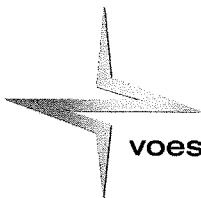


- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of substances listed below with nonhazardous additions.

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Dangerous components:

CAS: 7440-50-8 EINECS: 231-159-6	copper	25-50%
CAS: 15096-52-3 EINECS: 239-148-8	trisodium hexafluoroaluminat ⚠ STOT RE 1, H372; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332	10-25%
CAS: 7439-96-5 EINECS: 231-105-1	manganese ⚠ Acute Tox. 4, H332	2.5-10%
CAS: 7429-90-5 EINECS: 231-072-3	aluminium powder (pyrophoric) ⚠ Pyr. Sol. 1, H250; Water-react. 2, H261	2.5-10%
CAS: 1344-09-8 EINECS: 215-687-4	Silicic acid, sodium salt	2.5-10%
CAS: 7681-49-4 EINECS: 231-667-8	sodium fluoride ⚠ Acute Tox. 3, H301; ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319	2.5-10%
CAS: 13775-52-5	Kaliumkryolith Trikaliumhexafluoroaluminat ⚠ Acute Tox. 4, H332	2.5-10%
CAS: 7440-02-0 EINECS: 231-111-4	nickel ⚠ Carc. 1A, H350; ⚠ Skin Sens. 1, H317	≤ 2.5%

Additional information:

Warning: This product contains or produces a chemical known to the state of California to cause cancer.

CAS: 7439-89-6 EINECS: 231-096-4	iron	≤ 2.5%
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4 First aid measures**Description of first aid measures**

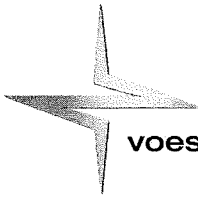
- **General information:** No special measures required.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** If skin irritation continues, consult a doctor.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.

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- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:** Pick up mechanically.
- **Reference to other sections** No dangerous substances are released.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling** Prevent formation of dust.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical facilities:**
Ventilation: Use enough ventilation, local exhaust at the arc, or both, to keep the fumes and gases from the worker's breathing zone and the general area. Train the welder to keep his head out of the fumes. Keep exposures as low as possible
Respiratory Protection: Use respirable fumes respirator or air supplied respirator when welding in confined space or where local exhaust or ventilation does not keep exposure below the recommended exposure limit.

· **Control parameters**

· **Ingredients with limit values that require monitoring at the workplace:**

7440-50-8 copper

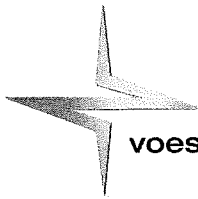
PEL (USA)	0.1*;1** mg/m ³ *fume **dusts & mists
REL (USA)	0.1*;1** mg/m ³ *Copper fume, as Cu **Copper dusts & mists, as Cu
TLV (USA)	0.2*, 1** mg/m ³ *fume; ** dusts&mists, as Cu

15096-52-3 trisodium hexafluoroaluminate

PEL (USA)	2.5 mg/m ³ as F
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REL (USA)	2.5 mg/m ³ as F
TLV (USA)	2.5,A4 mg/m ³ as F; (q)
7439-96-5 manganese	
PEL (USA)	Short-term value: C 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	0.2 mg/m ³ as Mn
7429-90-5 aluminium powder (pyrophoric)	
PEL (USA)	15*; 5** mg/m ³ *Total dust **Respirable fraction
REL (USA)	10*; 5** mg/m ³ Metal dust; *Total dust **Respirable fraction
TLV (USA)	10 mg/m ³ Metal dust
7681-49-4 sodium fluoride	
PEL (USA)	2.5 mg/m ³ as F
REL (USA)	2.5 mg/m ³ as F
TLV (USA)	2.5,A4 mg/m ³ as F; (q)
7440-02-0 nickel	
PEL (USA)	1 mg/m ³
REL (USA)	0.015 mg/m ³
TLV (USA)	1.5 I mg/m ³

· **Additional information:** The lists valid during the making were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:** Wash hands before breaks and at the end of work.

· **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

· **Protection of hands:** Heat protection gloves

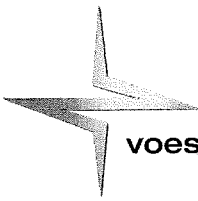
· **Material of gloves:** Leather gloves

· **Eye protection:**

Wear helmet or use face shield with filter lens. Provide protective screens and flash goggles, if necessary, to shield others. As a rule of thumb, start with a shade that is too dark to see the weld zone. Then go the next lighter shade which gives sufficient view of the weld zone.

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· **Body protection:** Protective work clothing**9 Physical and chemical properties**· **Information on basic physical and chemical properties**· **General Information**· **Appearance:**

· Form:	Solid
· Colour:	Grey
· Odour:	Odourless

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.· **Self-igniting:** Product is not selfigniting.· **Danger of explosion:** Product does not present an explosion hazard.· **Density:** Not determined.· **Solubility in / Miscibility with water:** Insoluble.· **Solvent content:**· **Solids content:** 97.8 %· **Other information** No further relevant information available.**10 Stability and reactivity**· **Reactivity**· **Chemical stability**· **Thermal decomposition / conditions to be avoided:**

No decomposition if used according to specifications.

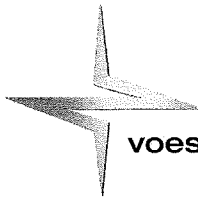
· **Possibility of hazardous reactions** No dangerous reactions known.· **Conditions to avoid** No further relevant information available.· **Incompatible materials:** No further relevant information available.· **Hazardous decomposition products:**

Welding fumes and gases cannot be classified simply. The composition and quantity of both are dependent upon the metal being welded, and the process, procedures, and electrodes used. Other conditions which also influence the composition and quantity of the fumes and gases to which workers may be exposed include: coatings on the metal being welded (such as paint, plating, galvanising, or phosphate coatings on steels which would produce phosphine gas), the number of welders and the volume of the work area, the quality and amount of ventilation, the position of the welder's head with respect to the fume plume as well as the presence of contaminants in the atmosphere (such as chlorinated hydrocarbon vapours from cleaning and degreasing activities which may be decomposed by the arc into toxic gases such as phosgene).

When the electrode is consumed, the fume and gas decomposition products generated are different in percent and form from the ingredients listed in SECTION II. Fume and gas decomposition products, and

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not the ingredients in the electrode are important. The concentration of a given fume or gas component may decrease or increase by many times the original concentration in the electrode. Also, new compounds not in the electrodes may form. Decomposition products of normal operation include those originating from the volatilization, reaction, or oxidation of the materials shown in SECTION II, plus those from the base metal and coating, etc..., as noted above. Reasonably expected fume constituents of this product would include: Example for Carbon dioxide shielded flux-cored electrode (AWS 5.20 E70-T-1): Reasonably expected fume constituents of this product would include: primarily oxides of Iron; secondarily complex oxides of Manganese, Silicon, Titanium and Sodium. The present ACGIH TLV for Manganese, 0.1 mg/m³ will result in a significant reduction from the 5 mg/m³ general welding fume (NOC) level. Example for Stainless Steel covered electrodes (AWS 5.4): Reasonably expected fume constituents of this product would include: primarily fluorides and complex oxides of Iron and Silicon, secondarily complex oxides of Manganese, titanium, chromium, nickel, sodium and potassium. The present OSHA PEL (Permissible Exposure Limit) - published in the U.S. Federal Register 71, pages: 10099-10385 - for hexavalent Chromium (Cr +6) is 0.005 mg/m³ which will result in a significant reduction from the 5 mg/m³ general welding fume (NOC) level. It applies to soluble chromates of the types found in covered stainless electrode fumes. Reasonably expected gaseous constituents would include Carbon monoxide and Carbon dioxide. Ozone and nitrogen oxides may be formed by the radiation from the arc. One recommended way to determine the composition and quantity of fumes and gases to which workers are exposed is to take an air sample from inside the welder's helmet if worn or in the worker's breathing zone. See ANSI/AWS F1.1 and ANSI/AWS F1.2-1992. In order to determine and evaluation of the existing problem areas, the standards prEn 15011 - part 1,4 can also be applied.

11 Toxicological information· **Information on toxicological effects**· **Acute toxicity:**· **LD/LC50 values relevant for classification:****15096-52-3 trisodium hexafluoroaluminate**

Oral LD50 >5 mg/kg (rat)

7439-96-5 manganese

Oral LD50 9000 mg/kg (rat)

7681-49-4 sodium fluoride

Oral LD50 52 mg/kg (rat)

7440-02-0 nickel

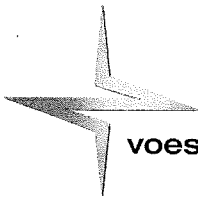
Intraperitoneal LD50 250 mg/kg (rat)

· **Primary irritant effect:**· **on the skin:** No irritant effect.· **on the eye:** No irritating effect.· **Sensitization:** Sensitization possible through skin contact.· **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects to our experience and the information provided to us.

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12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behaviour in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

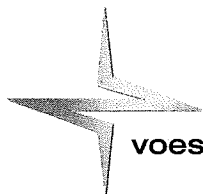
- **Waste treatment methods**
- **Recommendation** Must be specially treated adhering to official regulations.
- **European waste catalogue**
- 12 01 13 welding wastes
- 12 01 20 spent grinding bodies and grinding materials containing dangerous substances
- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **TDG, ADN, IMDG, IATA** Void
- **UN proper shipping name**
- **TDG, ADN, IMDG, IATA** Void
- **Transport hazard class(es)**
- **TDG, ADN, IMDG, IATA**
- **Class** Void
- **Packing group**
- **TDG, IMDG, IATA** Void
- **Environmental hazards:**
- **Marine pollutant:** No

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- | | |
|--|--|
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · UN "Model Regulation": | - |

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **GHS label elements** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard-determining components of labelling:**
trisodium hexafluoroaluminate
sodium fluoride
- **Hazard statements** Void
- **National regulations:**
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

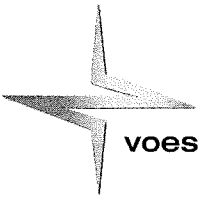
16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing MSDS:** QS department
- **Contact:**
Mr. Bill Smith
phone +1- 905-564-0589
- **Abbreviations and acronyms:**
ICAO: International Civil Aviation Organization
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
WHMIS: Workplace Hazardous Materials Information System (Canada)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Pyr. Sol. 1: Pyrophoric Solids, Hazard Category 1
Water-react. 2: Substances and Mixtures which, in contact with water, emit flammable gases, Hazard Category 2

Acute Tox. 3: Acute toxicity, Hazard Category 3
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
Carc. 1A: Carcinogenicity, Hazard Category 1A

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STOT RE 1: Specific target organ toxicity - Repeated exposure, Hazard Category 1
* **Data compared to the previous version altered.**

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