Safety Data Sheet

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

1.1 Product identifier INTERFLUX

UFI code FXFP-N3XQ-7P4Y-NYXJ

1.2. Relevant identified uses of the substance or mixture and uses advised against
High temperature flux for soldering high melting alloys.

1.3 Details of the supplier of the safety data sheet

		Production:
Manufacturer/Supplier:	INTERDENT d.o.o.	INTERDENT d.o.o.Street:
	Opekarniška cesta 26	Dol 1
Country code /Postal code/City:	SI-3000 Celje	SI-3342 Gornji GradTelephone:
	+386(0) 425-62-00	
Fax:	+368(0) 490-62-02	

1.4 Emergency telephone number

Emergency phone:	112 (EU)
	+386(0) 425-62-00 (Mon. – Fri.: 8.00 – 16.00)

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008:

Hazard class	Hazard category	Hazard statements
Acute toxicity (oral)	Hazard Category 3	H301: Toxic if swallowed.
Skin corrosion/irritation	Hazard Category 1B	H314: Causes severe skin burns and eye damage.
Reproductive toxicity	Hazard category 1B	H360FD: May damage fertility. May damage the unborn child.

2.2 Label elements
Labelling according to Regulation (EC) No. 1272/2008:

Hazard pictograms:

Signal word: DANGER

Hazard Statement(s):

H301: Toxic if swallowed.
H314: Causes severe skin burns and eye damage.

H360FD: May damage fertility. May damage the unborn child.

Precautionary statements:

Prevention:
P201 Obtain special instructions before use.
P260 Do not breathe dust/fume/gas/mist/vapors/spray P270
Do not eat, drink or smoke when using this product.
P280 Wear protective gloves/protective clothing/eye protection/face protection+
P264 Wash hands thoroughly after handling.

Response:
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308 + P313 IF exposed or concerned: Get medical advice / attention.
P363 Wash contaminated clothing before reuse.

Storage:
P405 Store locked up.

Disposal:
P501 Dispose of contents/container in accordance with local legislation.

Component on the label:

Potassium hydrogen difluoride, Boric acid

2.3 Other hazards:

No data available

SECTION 3: Composition / information on ingredients

3.1 Mixture

Chemical Name	**INDEX number** **EC-Number** **CAS Nr.**	**%**	**Classification according to EC 1272/2008**	
			Hazardous class/ hazardous category	Hazardous phrases
Boric acid	005-007-00-2 233-139-2 10043-35-3	50-60	Repr. 1B	H360FD
Potassium hydrogen difluoride	009-008-00-9 232-156-2 7789-29-9	10-20	Acute Tox. 3 Skin Corr. 1B	H301 H314
Glycerol	200-289-5 56-81-5	10-20	/	/

4. First Aid Measures

4.1 Description of first aid measures

General:
Immediately seek for medical attention. Place and transport the victim in lateral position in case of unconsciousness. Remove contaminated clothing. In case of eye contact rinse open lid with water and seek for medical attention. In case of accident and malaise seek for medical attention. (if possible, show safety data sheet). In case of respiratory failure, place victim on back and give artificial respiration mouth to nose. Do not give artificial respiration mouth to mouth.

Inhalation:
Remove person to fresh air at once. In case of cessation of breathing, carry out artificial respiration. In case of breathing difficulties, administrate oxygen if necessary. Keep person warm. Have person rest. Call in physician and poison control center immediately.

Eye contact:
In the event of contact with the eyes, rinse eyes under running water with eyelids open for atleast 15 minutes. Seek for physician.

Skin Contact:
In case of contact with the skin, wash off with plenty of water for at least 15 minutes. Apply polyethylene glycol 400. Remove contaminated clothing at once. In any case call in physician. Acid burns that are not treated lead to wounds that are difficult to heal.

Ingestion:
Do not induce vomiting. Immediately rinse mouth thoroughly with water. Have person drink plenty of water (at least 0.5 l) in small sips (dilution effect). Obtain medical assistance at once. Rest, warmth, place and transport person in lateral recovery position.

4.2 Most important symptoms and effects, both acute and delayed

Refer to section 11 for more information.

4.3 Indication of any immediate medical attention and special treatment needed

Hazards: No specific recommendations.
Treatment: No specific recommendations

SECTION 5: Firefighting measures

5.1 Extinguishing media
Suitable extinguishing media:
CO_2, foam, dispersed jet of water; in case of large fire use spray jet or alcohol resistant foam

5.2 Special hazards arising from the substance or mixture
The product itself is not combustible. Hazardous vapors may form due to ambient fire. In the event of fire, hydrogen fluoride may be released. In case of contact with light metals, hydrogen gas may form (risk of explosion).

5.3 Advice for firefighters
Use suitable breathing apparatus that is independent of ambient air. Use protective

clothingfor fire-fighting so as to avoid skin and eye contact. Stay in the danger zone only with suitable, impervious chemical protection suit.

Other instructions: Avoid penetration of fire-fighting water in surface waters or groundwater.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Avoid contact with substance. Do not pick up with unprotected hands. Wear protective clothing in accordance with section 8 of this safety data sheet.

6.2 Environmental precautions
Do not allow to enter water/ soil/ sewage system.

6.3 Methods and material for containment and cleaning up
The product is in paste form like. Pick- up mechanically (use proper hand protection according to section 8) and save in marked container.

6.4 Reference to other sections
See sections 7, 8 and 13.

SECTION 7: Handling and storage

7.1 Safety measures for safe handling
Keep containers tightly closed. Ensure adequate workplace ventilation. Avoid contact with skin and eyes. Do not inhale vapors, aerosols, or gases during use. Do not eat, drink, or smoke while working. Wash hands during breaks and after finishing work. In case of accident, have an eye wash shower nearby.

7.2 Conditions for safe storage, including incompatibilities
Store in tightly closed containers and restrict access to unauthorized persons. Keep away from sources of ignition and heat, as well as incompatible substances such as strong reducing agents (metal hydrides and alkali metals).

7.3 Specific end uses
No data available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
EU – Commission Directive 98/24/EC including all amendments and modifications, Regulation on the protection of workers from risks related to exposure to chemical substances at work (Official Gazette of the Republic of Slovenia, No. 72/2021, 29/2024, 26/2025), Regulation on the protection of workers from risks related to exposure to carcinogenic, mutagenic, or reprotoxic substances at work (Official Gazette of the Republic of Slovenia, No. 29/2024, 26/2025).

Occupational exposure limits
Not defined for the product.

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Substances:		
Boric acid		
OEL	Current exposure: 1,0 mg/m^3 (I) Long-term exposure: 0,5 mg/m^3 (I)	
Oral **Dermal** **Inhalable**	**DNEL**	/ / 8,3 mg/m^3 (workers-long-term exposure-local effect) 89 mg/m3 (users-long-term exposure-systemic effect)
	PNEC	2,02 mg/l
*I – Inhaled fraction		
Potassium hydrogen difluoride		
OEL **Fluoride** **CAS: 16984-48-8**	Current exposure: 10 mg/m^3 Long-term exposure: 2,5 mg/m^3 Directive 2000/15/EC	
Oral **Dermal** **Inhalable**	**DNEL**	0,024 mg/kg bw/d (users-long-term exposure-systemic effect) 0,024 mg/kg bw/d (users-acute-local effect) / 3,1 mg/m^3 (workers-long-term exposure-systemic effect) 5,1 mg/m^3 (workers-acute-local effect)
Glycerol		
OEL	Current exposure: 400 mg/m^3 (I) Long-term exposure: 200 mg/m^3 (I)	
Oral **Dermal** **Inhalable**	**DNEL**	/
*I – Inhaled fraction		

8.2 Exposure controls

Personal Protection:

General protection and hygiene measures:

Avoid contact with skin, eyes, and clothing. Remove contaminated clothing immediately. Do not inhale vapors, aerosols, or gases. Do not eat, drink, or smoke at the workplace. Protect food. Wash hands after work and before meals. Apply further appropriate skin protection according to employer-mandated safety practices. The minimum standard for chemical protection at work is specified in TRGS 500 (Technical Rules for Hazardous Substances).

Respiratory protection:

Mandatory respiratory protection is required only at elevated airborne concentrations: use full-face masks (EN 136) or half-face masks (EN 140) with E2 filters (EN14387) or FFP3 (EN149). The product is used for soldering small-section metal constructions up to a maximum of 10 mm². For successful soldering, the part of the metal to be soldered is dipped in Interflux and then fused with additional metal using an open flame. Exposure during this work is less than 1 g, so occupational exposure limits are not exceeded. Ventilation or the use of a fume hood is recommended, or at minimum, open a window. Respiratory protection is not required under these conditions.

Hand protection: Wear nitrile gloves according to EN 374 Type B or Type C. Gloves must also ensure safe handling of the product and fit closely to the hand for precise work during use.
Eye protection: Wear well-fitting protective goggles (EN 166).
Body protection: Wear protective work clothing.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Pasty, viscous
Colour	white
Odour	odourless
pH	5,3 (50% water solution)
Vapor pressure	0,13 g/m^3 (20°C)
Density	1,6 g/mL (20°C)
Flashpoint	n.a.
Explosion limits	n.a.
Solubility in water	Mix in all ratios

9.2 Other information
No additional information relevant.

SECTION 10: Stability and reactivity

10.1 Reactivity:
Not reactive under normal conditions and proper use.

10.2 Chemical Stability:

Stable under normal conditions.

10.3 Possibility of Hazardous Reactions:
In case of contact with strong acids: formation of hydrogen fluoride. Pay attention to pungent odor!

10.4 Conditions to Avoid:
Do not let the paste to dry out. No other data available.

10.5 Incompatible Materials:
Strong reducing agents, like metal hydrides or alai metals, release hydrogen that can produce explosive mixture with air. Materials, that contains silicates or glass corrodes. Dry product is hygroscopic. Incompatible with metals, various plastics, glass, animal/plant fibers.

10.6 Hazardous Decomposition Products
No decomposition given proper use. Reaction with strong acids: formation of hydrogen fluoride. Suction-extract vapors and discharge safely. Decomposition products in event of fire: see section 5.

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
The product has a caustic and harmful effect on the mucous membranes of the eyes and the respiratory organs. In the event of skin injuries and mucous membrane contact, toxic and caustic effect must be expected; if swallowed, damage in the gastrointestinal tract and intoxication must be expected. Harmful if swallowed, inhaled or in the case of contact with the skin. The main component, potassium hydrogen difluoride, poses acute or chronic risks to health.

Chemical name: Boric cid
Acute toxicity

Important LD/LC50 sorting values:		
Oral	**LD50**	2660 mg/kg (rat) - RTECS
Dermal	**LD50**	>2000 mg/kg (rat) - IUCLID
Inhalation	**LC50**	> 2,03 mg/l (rat) - OECD 403

Skin corrosion/irritation: rabbit: slightly irritant (IUCLID)
Serious eye damage/irritation: Rabbit: slightly irritant (IUCLID)**Respiratory or skin sensitization**: Guinea pig: negative
Germ cell mutagenicity:
Mutagenicity (test with mammalian cells): chromosomal aberrations: negative (NTP)Ames test: negative (IUCLID)
Carcinogenicity: Data not available.
Reproductive toxicity: May damage fertility.
Teratogenicity: May damage the unborn child.
STOT-single exposure: Not classified as STOT – single exposure.
STOT-repeated exposure: Not classified as STOT – repeated exposure.**Aspiration hazard:** Not classified as aspiration hazard.

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Chemical name: Potassium hydrogen difluorideAcute toxicity

Important LD/LC50 sorting values:		
Oral	**LD50**	52 - 250 mg/kg (rat)
Dermal	**LD50**	No data available
Inhalation	**LC50**	No data available

Skin corrosion/irritation: Classified.
Serious eye damage/irritation: No data available
Respiratory or skin sensitization: No data available. **Germ cell mutagenicity:** Ames test: negative (OECD 471)
Carcinogenicity: Not classified.
Reproductive toxicity: General toxicity parents: NOAEL 250 ppm; general toxicity F1: NOAEL 250 ppm (OECD 416)
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified.
Aspiration hazard: No data available.

Chemical name: Glycerol
Acute toxicity

Important LD/LC50 sorting values:		
Oral	**LD50**	> 12600 mg/kg (rat)
Dermal	**LD50**	>18700 mg/kg (rabbit)
Inhalation		Slightly irritant

Skin corrosion/irritation: slightly irritant
Serious eye damage/irritation: slightly irritant
Respiratory or skin sensitization: no data available.
Germ cell mutagenicity: No data available.
Carcinogenicity: Not classified
Reproductive toxicity: Not classified.
STOT-single exposure: Not classified
STOT-repeated exposure: Not classified
Aspiration hazard: No data available

Further information:
After inhalation
It may cause irritation to mucous membrane and may be harmful when breathing.
Skin contact:
It may cause irritation and might be harmful in case of penetration through skin.
Eye contact
Causes acid burns. Risk of corneal clouding. Risk of blindness!
Swallowing
Causes acid burns and is harmful if swallowed in the mouth, throat, esophagus and gastrointestinal tract. Tissue damage. Risk of perforation for esophagus and stomach. In the event of intake of large amounts of potassium ions, risk of reduction in blood pressure, coma and death.
Resorption
Heat sensation, spasms, coughing, headache, cardiac dysrhythmia, shock, unconsciousness. If allowed to react for a longer period: damage to bone marrow. For soluble inorganic fluorides the

following generally applies: Contact with eyes, skin and mucous membranes leads to irritation or even acid burns. Symptoms of excessive exposure to fluorides are salivation, nausea, vomiting, abdominal pains, fever, shortness of breath and cessation of breathing. Systemic effect of fluoride ions: reduction of blood serum-calcium level with risk of fatal hypocalcaemia, excitation, spasms, cardiovascular disorders, central nervous system disorders. Exposure to fluoride dust, vapors or mist for a longer period leads to perforation of the nasal septum. Chronic effects include excessive calcification of the bones, ligaments and tendons.

Organs affected
Kidneys, heart, bones, nerves, gastrointestinal tract, teeth

Further information
The product must be handled with special care

SECTION 12: Ecological Information

12.1 Toxicity
Harmful to aquatic organisms. Toxic effect on fish and plankton. Harmful effect due to pH reduction. Even when diluted with water, it forms a harmful mixture. Dilution in wastewater treatment plants is possible. Hazardous to drinking water. Do not allow to enter the environment.
Biological effects – data for potassium hydrogen difluoride:
Toxicity – fish: NOEC (Oncorhynchus mykiss, 21 d): 4 mg/L
Toxicity – water flea: NOEC (Daphnia magna, 21 d): 3.7 mg/L
Biological effects – data for boric acid (ECOTOX):
Toxicity – fish: NOEC (Oncorhynchus mykiss, 21 d): 4 mg/L
Toxicity – water flea: NOEC (Daphnia magna, 21 d): 3.7 mg/L

12.2 Persistence and degradability
Methods for determining the biodegradability of inorganic substances are not available.

12.3 Bioaccumulative potential
Accumulation in organisms is not expected (low bioaccumulation potential).

12.4 Mobility in soil
No data available.

12.5 Results of PBT and vPvB assessment
No data available.

12.6 Endocrine disrupting properties
No data available.

12.7 Other adverse effects
Do not discharge into surface water or the sewage system.

SECTION 13: Disposal consideration

13.1 Waste treatment methods

(Directive 2008/98/EC, Official Gazette RS 37/15, 69/15).

Methods of disposal: Dispose in accordance with Statute about handling with waste.

Disposal removing: Store disposal separately. Because of possible pollution, remove as industrial waste or hazardous waste

Polluted packaging: Store disposal separately. Because of possible pollution, remove as industrial waste or hazardous

Proposals for waste determination:
Waste group 06 01 Wastes from production, preparation, distribution and use of acids
Waste group 11 01 Wastes from chemical surface treatment and coating of metals and other materials (e.g. electroplating, galvanized coating, pickling, etching, phosphatizing, alkaline degreasing and electrolytic oxidation)

Waste key designation	Waste
06 01 06*	other acids
11 01 05*	acid pickling solutions
11 01 06*	acids not otherwise specified
11 01 98*	other wastes that contain hazardous substances

Packaging
Disposal according to the provisions of the waste law. Packaging contaminated with theproduct is considered to be waste requiring special monitoring.

Waste key	Waste designation
15 01 10*	Packaging that contains residues of hazardous substances or is contaminated withhazardous substances

SECTION 14: Transport Information

	ADR/RID	**ADNR**	**IMDG**	**IATA**
14.1 UN number	UN3260			
14.2 UN proper shipping name	Corrosive solid, acidic, inorganic, n.o.s. (potassium hydrogen difluoride)			
14.3 Transport hazard class(es)				
Class	8			
Classification code	C2	C2	/	/
Hazard label	8	8	/	/
Hazard identification	80	/	/	/
Tunnel restriction code	(E)	/	/	/
14.4 Packing group	III			

14.5 Environmental hazards	No environmental hazard
14.6 Special precautions for user	Product is pasty.
14.7 Maritime transport in bulk according to IMO instruments	No data available

SECTION 15: Regulatory information

15.1 Regulations / Legislation specific for the substance or mixture

The product is classified in accordance with the requirements of Regulation (EC) No. 1272/2008 and 1907/2006, including their amendments, and corresponding national laws: Regulation on the implementation of the Regulation (EC) on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), Official Gazette of the Republic of Slovenia No. 23/08 and 191/20, and Regulation on the implementation of Regulation (EC) No. 1272/2008 of the European Parliament and of the Council of 16 December 2008 on the classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No. 1907/2006, Official Gazette of the Republic of Slovenia No. 56/10.

15.2 Chemical safety assessment

A chemical safety assessment for potassium hydrogen difluoride (CAS 7789-29-9) contained in the product has not been carried out. A chemical safety assessment for boric acid (CAS 10043-35-3) has been conducted.

SECTION 16: Other information

Revision:

Version 09 issued on July 2025 in accordance with EC 1907/2006 (Commission Regulation (EU) 2015/830) and EC 1272/2008 with all amendments.

Revision in accordance to changes in COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

Legend of abbreviations:

ADR – European agreement concerning the international carriage of dangerous goods by roadCAS – Chemical Abstracts Service
CLP – Classification, Labeling and Packaging
CMR – Carcinogenic, Mutagenic or toxic for ReproductionDNEL - Derived no-effect level
EC_{50}: Half maximal effective concentrationEmS – Emergency Schedule

GHS – Globally Harmonised System of Classification and Labeling of ChemicalsIATA – International Air Transport Association
IUCLID – International Uniform Chemical Information DatabaseIMDG – International Maritime Dangerous Goods Code
LC_{50}: Lethal concentration, 50%
LD_{50}: Median lethal dose; the dose causing 50% lethality
MARPOL – International convention for the prevention of pollution from shipsNOEC - No-observed-effect concentration
NOAEL – No-observed-adverse-effect levelNTP- National Toxicology Program
OEL - Occupational exposure limit
OECD - Organisation for Economic Co-operation and DevelopmentPBT – Persistent Bioaccumulative Toxic
PNEC: Predicted no-effect concentrationPpm – parts per million
REACH – Registration, Evaluation, Authorisation and Restriction of Chemicals
RTECS – The Registry of Toxic Effects of Chemical Substances
RID – Regulation concerning the international carriage of dangerous goods by railvPvB – very Persistent and very Bioaccumulative

References:

- Regulation (EC) No 1907/2006 (REACH), as amended by 2015/830/EU
- Regulation (EC) No 1272/2008 (CLP, EU GHS)
- Commission Directive 2009/161/EU
- Safety data sheets from raw material manufacturers
- Martindale: The Extra Pharmacopoeia, 13th edition
- ECHA website: https://chem.echa.europa.eu/
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)
- Regulation on the implementation of the EU Regulation on personal protective equipment (Official Gazette of the Republic of Slovenia No. 33/18)
- List of harmonized standards for personal protective equipment (C 412 / 11.12.2015, including all amendments and additions) – Occupational Health and Safety Act (Official Gazette of the Republic of Slovenia No. 43/2011)
- Waste Management Regulation (Official Gazette of the Republic of Slovenia No. 77/22 and 113/23)
- Regulation on Packaging and Packaging Waste (Official Gazette of the Republic of Slovenia No. 54/21, 208/21, 44/22 – ZVO-2 and 120/22)
- European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) – Notice of publication of Annexes A and B
- Dangerous Goods Regulations (DGR) for air transport (IATA)
- International Maritime Dangerous Goods (IMDG) Code
- EU – Commission Directive 98/24/EU, including all amendments and modifications

- Regulation on the protection of workers from risks related to exposure to chemical substances at work (Official Gazette of the Republic of Slovenia No. 72/2021, 29/2024, 26/2025)
- Regulation on the protection of workers from risks related to exposure to carcinogenic, mutagenic, or reprotoxic substances at work (Official Gazette of the Republic of Slovenia No. 29/2024, 26/2025)

Classification method:
Classification of mixtures based on ingredients for the mixture (Data available for all ingredients). The ATE of the mixture (oral) is determined by calculation from the ATE values of relevant ingredients listed in section 11. Relevant substance is potassium hydrogen difluoride with lower LD50 = 52 mg/kg (rat, oral). ATE_{mix} = 274 (Acute toxicity (oral), category 3).

Disclaimer of expressed and implied warranties:
Safety data sheet give information about previous knowledge about the product, actually about raw material in product. It is guideline for safe using, handling, disposing, storage and transport and cannot be used as a guarantee.