U.S. Department of Labor
Occupational Safety and Health Administration
(Non-Mandatory Form). Format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements.

Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

Section 1: Product and Company Identification

Product Name:	CS612
Product Type:	ALUMINUM BRAZING POWDER FLUX
Manufacturer:	TECHNIWELD USA
Physical Address:	6205 BOAT ROCK BLVD ATLANTA, GA 30336
Mailing Address:	P.O. Box 44226 ATLANTA, GA 30336
Business Phone:	404-699-9900
Business Fax:	404-699-7800
E-mail Address:	info@TECHNIWELDUSA.COM
Web Address:	www.TECHNIWELDUSA.COM
Emergency Phone:	CHEMTREC (24-Hour) 1-800-424-9300 Outside of the USA & Canada 1-703-527-3887
Date of Preparation:	September 1, 2020 (Revised September 4, 2008)
OSHA Regulatory Status:	Non-Regulated
WHMIS Classification:	Not a Controlled Product

Section 2: Hazards Identification

Hazard symbols	Xn	Harmful (self-categorization)
R-phrases	R41	Risk of serious eye injury
	R48/20/21/22	Danger of serious damage to health in the case of extended exposure if inhaled, swallowed or contact is made with the skin
	R52/53	Harmful to aquatic organisms, can cause long-term adverse effects in water.

CAUTION: Exothermic reaction to 100°C in the event of water contact

Observe the usual precautions for handling chemicals.
Possible hazards are irritation of the eyes, skin, respiratory tract and mucous membranes.
Repeated and extended exposure can result in a sore throat, nose bleeds and chronic bronchitis. Do not inhale the smoke and vapour which occur when used.

Section 3: Composition and Information on Ingredients

Chemical characterization (preparation)
Description:
Corrosive, chloridic / fluoridic flux for hard soldering of aluminum
Name of the substance
Type: F-LH1 in accordance with DIN 8511/FL 10 in accordance with DIN EN 1045
Composition:
NaCl, KCl, LiCl, an organic and complex fluoride mixture

Lithium chloride	< 25%	CAS No.: 7447-41-8
Zinc fluoride	< 5%	CAS No.: 7783-49-5
Potassium fluoroaluminate	< 4%	CAS No.: 14484-69-6

Section 4: First Aid Measures

General information
Remove contaminated clothing immediately. It can take many hours before symptoms of poisoning appear. Monitor medically therefore for at least 48 hours following an accident. Do not remove respiratory protection until contaminated clothing has been removed. Provide artificial respiration if breathing is irregular or stops.
After inhaling
If inhaled, take subject into fresh air. Seek medical attention if complaints continue. If larger amounts are ingested, rinse oral and nasal cavities thoroughly. If the subject is unconscious, transport him/her lying securely on his/her side. Seek emergency medical attention if complaints continue.
After contact with the skin
Brush the powder off and then wash off thoroughly with water. **(CAUTION: exothermic reaction to 100°C in the event of water contact)**
After contact with the eyes
With the eyelids open, immediately and thoroughly rinse out the eyes with plenty of water (eye bath). Seek out a medical eye specialist if complaints continue.
After swallowing
Wash mouth out and have the subject drink water. Allow the subject to vomit only if he/she is completely conscious. Immediately seek medical attention.

Section 5: Fire Fighting Measures

Suitable extinguishing agents
This product is not flammable. Possible extinguishing agents: Water mist / extinguishing foam / carbon dioxide / extinguishing powder
Keep the exothermic reaction in mind when using water!
Special protective equipment for fire fighting
In the event of a fire, wear a self-contained breathing apparatus. There is a danger that hydrogen fluoride can form.

Section 6: Accidental Release Measures

Precautions for personnel
Provide adequate ventilation and extraction. Wear good protective clothing.
Environmental protection measures
Do not allow to get into water or the sewage system. Local authorities must be notified if this cannot be prevented.
Cleaning/removing procedures
Sweep the powder up without raising dust, collect in a container and dispose of as hazardous waste. Neutralise remaining traces using lime water or the like.

Section 7: Handling and Storage

Handling
Instructions on safe handling
Wear personal protective equipment when producing the aqueous suspension and vacuum off any dust created in the process.
General rules of industrial hygiene must be observed when handling and processing the product in any form such as for example: washing with normal mains water. Removing contaminated clothing.
Do not eat/drink/smoke in the workplace. Wash hands before breaks and when finishing work. Use only in well-ventilated areas. Keep containers tightly closed. Keep respiratory mask at hand.
Information on fire and explosion protection:
No special precautions necessary.

Storage
Can be stored for an unlimited time in the original packaging (closed tightly), in a cool, dry and well-ventilated location.
Note on joint storage
Keep away from and avoid contact with acids. Keep away from ignition sources. Do not smoke.
Other information on storage conditions
Keep containers tightly closed.

Section 8: Exposure Controls / Personal Protection

Ingredients with workplace-specific limits to be monitored

CAS No.:	16984-48-8
Name of the substance:	Fluoride (calculated as fluoride, intake by inhalation fraction)

	Value	Version	Based on
AGW	1 (mg/m³)	12/2007	TRGS 900

Personal protective equipment
General protection and hygiene measures
In order to ensure optimum skin protection: use a rich soap and skin cream
as skin care. Otherwise, observe the general rules of industrial hygiene (see point 7).
Do not inhale dust. Wash your hands before breaks and when finishing work. Do not eat and drink when working.
Do not smoke when working. Remove contaminated clothing and keep separate. Avoid contact with eyes and skin.

Respiratory protection:	Yes / dust mask	
Hand protection:	Yes / rubber gloves (DIN EN 374)	**Must be observed**
Eye protection:	Yes / safety goggles	**when producing**
Other:	Yes / suitable protective work clothing	**aqueous suspension!!!**

The company health and safety representative must monitor and make sure that suitable personal protective equipment is being used.

Section 9: Physical and Chemical Properties

Form:	powder			
Color:	white/grey-light yellow			
Odor	neutral			
			Value/Range/Unit	
Change of state				
Melting point/range		Working temperature	515 – 630	°C
Boiling point/range			TBD	
Flash point:			not flammable	
Flammability			N/A	
Ignition temperature			N/A	
Spontaneous ignition			N/A	
Explosion limits	Lower		N/A	
	Upper		N/A	
Vapour pressure	(20 °C)		N/A	
Density Bulk	(20 °C)		N/A	
density	(20 °C)	approx.	1200	kg / m^3
Solubility	(20 °C)	approx.	10	g/l
pH (10 g/l water)	(20 °C)	approx.	3 – 5	(suspension)
Distribution coefficient			N/A	
Viscosity	(20 °C)		N/A	

Section 10: Stability and Reactivity

Hazardous decomposition products:
At temperatures >700°C HCl and HF separation (pyrolysis). Hazardous reaction:
Contact with strong acids releases hydrogen fluoride or hydrogen chloride. Avoid contact with strong oxidizing agents.

Section 11: Toxicological Information

Acute oral toxicity	TBD
Acute dermal toxicity	TBD
Irritating/caustic effect	
Skin irritant	TBD
Eye irritant	TBD

Section 12: Ecological Information

Water hazard class:	**3 (self-assessment)**
Toxicity to the environment:	TBD

Section 13: Disposal Considerations

Recommendation: Dispose of in accordance with the local waste regulations.
Waste Code Number: 150110

Section 14: Transportation Information

Land transport ADR/RID

Not a hazardous material

Transport by ship IMDG/GGVSee

The product is not subject to the transport regulations governing marine transport

Air transport ICAO/IATA

The product is not subject to the transport regulations governing air transport

Additional information

May be sent by post

Section 15: Regulatory Information

Hazard symbols	Xn	Harmful
R-phrases	R41	Risk of serious damage to eyes
	R48/20/21/22	Danger of serious damage to health in the case of extended exposure if inhaled, swallowed or contact is made with the skin.
	R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in water
S-phrases	S36/37/3	Wear suitable protective clothing, gloves and protective goggles/protective visor when working.
	9 S26	In case of contact with eyes, rinse thoroughly with water and seek medical attention.
	S22-24:	Do not inhale dust/gas/smoke/vapors and avoid contact with skin.

National regulations

Water hazard class

Class	3
Source	Classification in accordance with Appendix 3 VwVwS

Other regulations:

BGI 576 data sheet: hydrogen fluoride, hydrofluoric acid and inorganic fluorides (M005)

Section 16: Other Information

Ventilation of the workplace in accordance with BGR 500, Chap – 2.26

This information, which reflects our current knowledge and experience, is intended to describe our product with respect to any safety requirements.

We do not however provide any guarantees about its properties or descriptions concerning quality.