Zentrum für Löt- und Entlötsysteme



EDSYN GMBH EUROPA, Postfach 1169, D-97888 Kreuzwertheim

27. Dez. 2018

Material Safety Data Sheet - according to Regulation (EC) No. 1907/2006

INTERNATIONAL STANDARD NORM ISO 11014-1

Trade	e name: FLUXI FL 19222	Flux Dispenser	F-SW 33 / DIN 8511 DIN EN 29454 / 1.2.3.A Solid content: 3,0 %
1.)	IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING		
1.1.)	Product identifier		
	Trade name:	Flux FL 19222	
1.2.)	Relevant identified uses of the substance or mixture and uses advised against		
	Use of the substance/mixture:	Fluxes Industrial use of processing aids.	
1.3.)	Details of the supplier of the safety data sheet		
	Supplier: Address:		09342 – 6413 09342 – 6417
	Responsible Department:	QS Tel. 0	9342 – 6413
1.4.)	Emergency telephone number	Closed hospital	
2.)	HAZARDS IDENTIFICATION		
2.1.)	Classification of the substance or mixture		
	Classification according to Directive 67/548/EEC or 1999/45/EC		
	Indications of danger:	F- Highly flammable, Xi - Irritant	
	R phrases:	Highly flammable. Irritating to eyes. Vapours may cause drowsiness and di	zziness.
	Classification according to Regulation (EC) No 1272/2008 [CLP]		
	Hazard categories:	Flammable liquid: Flam. Liq. 2 Serious eye damage/eye irritation: E Specific target organ toxicity – singl	

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	Hazard Statements:	Highly flammable liques Causes serious eye May cause drowsine	irritation.
2.2.)	Label elements		
	Hazardous components which must be listed on the label:	Propan-2-ol; isoprop	yl alcohol; isopropanol.
	Signal word:	Danger	
	Pictograms:	GHS02-GHS07	
			<u>(!)</u>
	Hazard statements:	H225 H319 H336	Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.
	Precautionary statements:	P202 P270 P210 P233 P240 P241 P242 P243 P261 P271 P280	Do not handle until all safety precautions have been read and understood. Do not eat, drink or smoke when using this product. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.
		P303+P361+P353 P304+P340 P312 P305+P351+P338 P337+P313	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention

advice/attention.

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Precautionary statements:	P370+P378	In case of fire: Use in case of fire, use sand, extinguishing powder or alcohol resistant foam to extinguish.
	P235	Keep cool.
	P403+P233	Store in a well-ventilated place. Keep container tightly closed.
	P405	Store locked up.
	P501	Dispose of contents/container to this material and its container must be disposed of as hazardous waste. Consult the local waste disposal expert about waste disposal. Dispose of waste according to "Kreislaufwirtschaftsund Abfallgesetz (KrW-/AbfG)".
2.3.) Other hazards	No information availa	able.
3.) COMPOSITION/INFORMATION ON INGREDIENTS		
3.1.) Mixtures		
Chemical characterization:	Contains: Alcohol	

Hazardous components

Chemical name	Productidentifier	Quantity	Classification according to Directive 67/548/EEC
2-propan-2-ol; isopropyl alcohol; isopropanol	(CAS No.) 67-63-0 (EC No.) 200-661-7 (INDEX No.) 603-117-00-0 (REACH No.)	80-100 %	F-Highly flammable, Xi- Irritant R11-36-67
itacon acid	(CAS No.) 97-65-4 (EC No.) 202-599-6 (INDEX No.) (REACH No.)	1-4 %	Xi-Irritant R41

Chemical name	Productidentifier	Quantity	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-propan-2-ol; isopropyl alcohol; isopropanol	(CAS No.) 67-63-0 (EC No.) 200-661-7 (INDEX No.) 603-117-00-0 (REACH No.)	80-100 %	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336
itacon acid	(CAS No.) 97-65-4 (EC No.) 202-599-6 (INDEX No.) (REACH No.)	1-4 %	Eye Dam. 1; H318

Full text of R-, H- and EUH-phrases: see section 16

Further information Contains: resin >> No risks worthy of mention.

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4.)	FIRST AID MEASURES	
4.1.)	Description of first aid measures	
,	After inhalation:	Provide fresh air. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).
	After contact with skin:	Wash with plenty of water. Take off contaminated clothing and wash it before reuse.
	After contact with eyes:	After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.
	After ingestion:	Observe risk of aspiration if vomiting occurs. Rinse mouth immediately and drink plenty of water. Do not induce vomiting. In case of persisting problems contact physician.
4.2.)	Most important symptoms and effects, both acute and delayed	No information available.
4.3.)	Indication of any immediate medical attention and special treatment needed	Treat symptomatically.
5.)	FIREFIGHTING MEASURES	
5.1.)	Extinguishing media	
	Suitable extinguishing media:	Carbon dioxide (CO ₂₎), Foam, Extinguishing powder.
	Unsuitable extinguishing media:	Water
5.2.)	Special hazards arising from the substance or mixture	Flammable. Vapours can form explosive mixtures with air.
5.3.)	Advice for firefighters	In case of fire: Wear a self-contained breathing apparatus and chemical resistant suit. Full protective suit.
	Additional information:	Use water spray jet to protect personnel and to cool endangered containers. Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.
6.)	ACCIDENTAL RELEASE MEASURES	
6.1.)	Personal precautions, protective equipment and emergency procedures	Remove all sources of ignition. Provide adequate ventilation. Do not breathe gas/fumes/vapours/spray. Avoid contact with skin, eyes and clothes. Use personal protection equipment.
6.2.)	Environmental precautions	Do not allow uncontrolled discharge of product into the environment. Danger of explosion.

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6.3.)	Methods and material for containment and cleaning up Reference to other sections	Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid-or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Safe handling: see section 7 Personal protection equipment: see section 8 Disposal: see section 13
7.)	HANDLING AND STORAGE	
7.1.)	Precautions for safe handling	
	Advice on safe handling:	If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray. Close container tightly after use. Avoid eye contact
	Advice on protection against fire and explosion:	Keep away from sources of ignition - No smoking. Take precautionary measures against static discharges. Vapours can form explosive mixtures with air.
7.2.)	Conditions for safe storage, including any incompatibilities	
	Requirements for storage rooms and vessels:	Keep container tightly closed. Keep in a cool well-ventilated place. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources No smoking.
	Advice on storage compatibility:	Do not store together with: Oxidising agent. Pyrophoric or self-heating substances.
7.3.)	Specific end use(s)	Fluxes Industrial use of processing aids.
8.)	EXPOSURE CONTROLS/PERSONAL PROTECTION	

8.1.) Control parameters

Exposure limits (EH40)

CAS No.	Substance	ppm	mg/m³	fibres/ml	Category	Origin
67-63-0	Propan-2-ol	400 500	999 1250		TWA (8 h) STEL (15 min)	WEL WEL

8.2.) Exposure controls











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	Appropriate engineering controls:	If handled uncovered, arrangements with local exhaust ventilation have to be used. Do not breathe gas/fumes/vapour/spray.
	Protective and hygiene measures:	Remove contaminate, saturated clothing immediately. Draw up and observe skin protection programme. Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.
	Eye/face protection:	Suitable eye protection: goggles.
	Hand protection:	When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
		Breakthrough times and swelling properties of the material must be taken into consideration. Take recovery periods for skin regeneration. In the case of wanting to use the gloves again, clean them before taking off and air them well. Use gloves only once. Before using check leak tightness/impermeability.
		Additional protection measures for the hands: Hand protection: DIN EN 374
		-CR (polychloroprenes, Chloroprene rubber) Thickness of glove material: 0,65 mm penetration time (maximum wearing period): > 120 min.
		-NBR (Nitrile rubber) Thickness of glove material: 0,4 mm penetration time (maximum wearing period): > 480 min.
	Skin protection:	Flame-retardant protective clothing. Wear anti-static footwear and clothing.
	Respiratory protection:	In case of inadequate ventilation wear respiratory protection. Use appropriate respiratory protection. Use only respiratory protection equipment with CE-symbol including four digit test number. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, closed-circuit breathing apparatus must be used! Filtering device (full mask or mouthpiece) with filter: A.
	Environmental exposure controls:	No special measures are necessary.
9.)	PHYSICAL AND CHEMICAL PROPERTIES	
9.1.)	Information on basic physical and chemical properties	
	Physical state: Colour: Odour:	liquid amber Alcohol

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	ph-Value:	Test method Not applicable etc.
	Changes in the physical state	
	Melting point: Initial boiling point and boiling range: Flash point:	Not determined ca. 80 ℃ 12 ℃
	Flammability	
	Solid: Gas: Lower explosion limits: Upper explosion limits:	not applicable not applicable 2 vol% 12 vol%
	Auto-ignition temperature	
	Solid: Gas: Decomposition temperature	not applicable not applicable not determined
	Oxidizing properties	Not oxidizing.
	Vapour pressure (at 20 ℃): Vapour pressure (at 50 ℃): Density: Water solubility:	48 hPa 236 hPa ca. 0,8 g/cm³ slightly soluble
	Solubility in other solvents	not determined
	Partition coefficient: Vapour density: Evaporation rate: Solvent content:	not determined not determined not determined ca. 95%
9.2.)	Other information	
	Solid content:	not determined
10.)	STABILITY AND REACTIVITY	
10.1.)	Reactivity	Flammable. Ignition hazard. No risks worthy of mention.
10.2.)	Chemical stability	Stability and reactivity: Yes.
10.3.)	Possibility of hazardous reactions	Violent reaction with: Oxidizing agents, strong.
10.4.)	Conditions to avoid	Keep away from sources of heat (e.g. hot surface), sparks and open flames. Vapours can form explosive mixtures with air. Keep away from heat.
10.5.)	Incompatible materials	Alkali metals.

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10.6.)	Further information:		Thermal decomposition can lead to the escape of irritating gases and vapours.					
					eventive measure ecified in the TRO		dling with	
11.) 11.1)		TOXICOLOGICAL INFORMATION Information on toxicological effects						
	Acute toxicity Itaconic acid							
	CAS No.	Exposure routes	Chen	nical name	Method	Dose	Species	Source
	97-65-4	oral	Itacoi	nic acid	LD50	>2000 mg/kg	Rat	
	Additional information on tests:		This mixture No. 1272/200		as hazardous ac	cording to re	egulation (EC)	
12.)	ECOLOGICAL	LINFORMATION						
12.1)	Toxicity			The product is not: Ecotoxic.				
12.2)	Persistence and degradability			The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).				
12.3)	Bioaccumulative potential			On the basis of existing data about the elimination/degradation and bioaccumulation potential longer term damage to the environment is unlikely.				
12.4)	Mobility in so	il		No data avail	able.			
12.5)	Results of PB assessment	T- and vPvB-		This substance does not meet the criteria for classification as PBT or vPvB.				
12.6)	Other adverse	e effects		No data available.				
	Further information:				re determine	ronment. The eco ed by the ecotoxi section 3).		
13.)	DISPOSAL CO	ONSIDERATIONS						
13.1.)	Waste treatme	ent methods						
	Advice on dis	sposal:		Do not allow according to		surface water or gislation.	drains. Disp	oose of waste

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Waste disposal number of used product and of waste from residues/unused products:

140603

WASTE ORGANIC SOLVENTS, REFRIGERANTS AND PROPELLANTS (except 07 and 08): waste organic solvents, refrigerants and foam/aerosol/propellants; other solvents and solvent mixtures. Classified as hazardous waste.

Waste disposal number of contaminated packaging:

150102

WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging:

Wash with plenty of water. Completely emptied packages can be

recycled.

14.) TRANSPORT INFORMATION

14.1.) Land transport (ADR/RID):

UN number: UN1993

UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol,

isopropanol)

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Transport hazard class(es):

Packaging group:
Hazard label:



Classification code:

Special provisions: 274 601 640C

Limited quantity:

Excepted quantity:

Transport category:

Hazard No:

Tunnel restriction code:

1 L
E2
2
33
D/E

14.2.) Inland waterways transport (ADN)

UN number: UN1993

UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol,

isopropanol)

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Transport hazard class(es):

Packaging group:
Hazard label:



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Classification code: 274 601 640C Special provisions: Limited quantity: 1 L Excepted quantity: E2 14.3.) Marine transport (IMDG) UN number: UN1993 UN proper shipping name: FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol; isopropanol) Transport hazard class(es): Packing group: Ш Hazard label: 3 274 Special provisions: 1 L Limited quantity: F2 Excepted quantity: F-E, S-E EmS: IMDG-Code segregation group not applicable Segregation group: 14.4.) Air transport (ICAO) UN1993 **UN number:** FLAMMABLE LIQUID, N.O.S. (propan-2-ol; isopropyl alcohol, UN proper shipping name: isopropanol) 3 Transport hazard class(es): Packing group: Hazard label: АЗ Special provisions: 1 L Limited quantity Passenger: Y341 Passenger LQ: E2 Excepted quantity: IATA-packing instructions -353 Passenger: 5 L IATA-max. quantity - Passenger: 364 IATA-packing instructions - Cargo: 60 L IATA-max. quantity - Cargo:

no

14.5.) Environmental hazards

Environmentally hazardous:

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14.6.)	Special precautions for user	Warning: Combustible liquid. Do not allow uncontrolled discharge of product into the environment.		
14.7.)	Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	not applicable, etc.:		
	Other applicable information:	Discharge into the environment must be avoided.		
15.)	REGULATORY INFORMATION			
15.1.)	Safety, health and environmental regulations/legislation specific for the substance or mixture			
	EU regulatory information			
	2010/75/EU (VOC):	94,5 %		
	2004/42/EC (VOC):	94,5 %		
	Additional information To follow:	850/2004/EC, 79/117/EEC, 689/2008/EC		
	National regulatory information			
	Employment restrictions:	Observe employment restrictions for young people.		
	Water contaminating class (D):	1 – slightly water contaminating		
	Additional information:	The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.		
15.2.)	Chemical safety assessment	Chemical safety assessment for substances in this mixture were not carried out.		
16.)	OTHER INFORMATION			
	Abbreviations and acronyms:	ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road). IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonized System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service LC50: Lethal concentration, 50% LD50: Lethal dose, 50%		

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Relevant R-phrases (Number and full text):	11 36 41 67	Highly flammable. Irritating to eyes. Risk of serious damage to eyes. Vapours may cause drowsiness and dizziness.
Relevant H- and EUH-phrases (Number and full test):	H225 H318 H319 H336	Highly flammable liquid and vapour. Causes serious eye damage. Causes serious eye irritation. May cause drowsiness or dizziness.
Revisions date:	03.07.2013 / 13.10.2015 / 07.06.2017	
Revisions No:	4.03	

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet).