



Safety Data Sheet

Page 1 of 10

LOCTITE X33-08I known as FLUX X33-08I 200L

SDS No. : 153928

V001.4

Revision: 17.03.2020

printing date: 08.10.2020

Section 1. Identification of the substance/preparation and of the company/undertaking

Product name: LOCTITE X33-08I known as FLUX X33-08I 200L

Other means of identification: LOCTITE X33-08I 200L

Product code: IDH623491

Recommended use of the chemical and restrictions on use

Intended use: Liquid Flux

Identification of manufacturer, importer or distributor

Distributor: Mektronics Australia

5 Prince William Dr

Seven Hills, NSW, 2147

E-mail address of person ap-ua-psra.sea@henkel.com

responsible for Safety Data

Sheet:

Emergency information: FOR EMERGENCIES ONLY (Spill, major leak, Fire, Exposure, or Accident).
Call 1300 788 701

Section 2. Hazards identification

GHS Classification:

Hazard Class

Flammable liquids

Serious eye damage/eye irritation

Specific target organ toxicity -

single exposure

Hazard Category

Category 2

Category 2

Category 3

Target organ

Central nervous system

GHS label elements:

Hazard pictogram:



Signal word:

Danger

Hazard statement: H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precaution:

Prevention: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P240 Ground and bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use non-sparking tools.
P243 Take action to prevent static discharges.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P264 Wash hands thoroughly after handling.
P280 Wear protective gloves, eye protection, and face protection.

Response: P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P304+P340+P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage: P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P403+P235 Store in a well-ventilated place. Keep cool.

Disposal: P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Section 3. Composition / information on ingredients

Substance or Mixture:
Mixture

Declaration of hazardous chemical:

Hazard component CAS-No.	Content	GHS Classification
Propan-2-ol 67-63-0	60- 100 %	Flammable liquids 2 H225 Serious eye damage/eye irritation 2 H319 Specific target organ toxicity - single exposure 3 H336
adipic acid 124-04-9	0.1- 1 %	Serious eye damage/eye irritation 1 H318

Section 4. First aid measures

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

Skin contact:	Immediately wash skin thoroughly with soap and water. Obtain medical attention if irritation persists.
Eye contact:	Rinse immediately with plenty of running water (for 10 minutes). Seek medical attention if necessary.
Ingestion:	Do not induce vomiting. Seek medical advice.
Indication of immediate medical attention and special treatment needed:	See section: Description of first aid measures

Section 5. Fire fighting measures

Suitable extinguishing media:	Alcohol-resistant foam.
Improper extinguishing media:	Water jet (solvent-containing product).
Specific hazards arising from the chemical:	Can form explosive gas/air mixtures.
Special protection equipment and precautions for firefighters:	Wear self-contained breathing apparatus.
Hazardous combustion products:	Oxides of carbon.

Section 6. Accidental release measures

Personal precautions:	Avoid contact with skin and eyes. Wear protective equipment.
Environmental precautions:	Do not let product enter drains. Prevent further leakage or spillage if safe to do so.
Clean-up methods:	Remove all sources of ignition. For small spills wipe up with paper towel and place in container for disposal. For large spills absorb onto inert absorbent material and place in sealed container for disposal.

Section 7. Handling and storage

Handling:	Use only in well-ventilated areas. Keep away from sources of ignition - no smoking. Avoid breathing fumes given out during soldering. Keep out of the reach of children.
Storage:	Store in a cool, well-ventilated place. Keep away from sources of ignition.

Section 8. Exposure controls / personal protection

Components with specific control parameters for workplace:

2-PROPANOL 67-63-0	Value type	Time Weighted Average (TWA):
	ppm	200
	Remarks	ACGIH
ISOPROPYL ALCOHOL 67-63-0	Value type	Time Weighted Average (TWA):
	ppm	400
	mg/m³	983
	Remarks	MY OEL
2-PROPANOL 67-63-0	Value type	Short Term Exposure Limit (STEL):
	ppm	400
	Remarks	ACGIH
ADIPIC ACID 124-04-9	Value type	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	ACGIH
ADIPIC ACID 124-04-9	Value type	Time Weighted Average (TWA):
	mg/m³	5
	Remarks	MY OEL

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment.
Filter type: A (EN 14387)

Hand protection:

Chemical-resistant protective gloves (EN 374).
Suitable materials for short-term contact or splashes (recommended: at least protection index 2, corresponding to > 30 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
Suitable materials for longer, direct contact (recommended: protection index 6, corresponding to > 480 minutes permeation time as per EN 374):
nitrile rubber (NBR; >= 0.4 mm thickness)
This information is based on literature references and on information provided by glove manufacturers, or is derived by analogy with similar substances. Please note that in practice the working life of chemical-resistant protective gloves may be considerably shorter than the permeation time determined in accordance with EN 374 as a result of the many influencing factors (e.g. temperature). If signs of wear and tear are noticed then the gloves should be replaced.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.
Protective eye equipment should conform to EN166.

Body protection:

Wear suitable protective clothing.
Protective clothing should conform to EN 14605 for liquid splashes or to EN 13982 for dusts.

Engineering controls:

Ensure adequate ventilation, especially in confined areas.
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Hygienic measures:

Do not eat, drink or smoke while working. Good industrial hygiene practices should be observed. After handling solder wash hands with soap and water before eating, drinking or smoking.

Section 9. Physical and chemical properties

Appearance:	Clear liquid
Odor:	isopropanolic
Odor threshold (CA):	No data available.
pH:	Not applicable
Melting point / freezing point:	No data available.
Specific gravity:	0.8
Boiling point:	82 °C (179.6 °F)
Flash point:	12 °C (53.6 °F)
Evaporation rate:	No data available.
Flammability (solid, gas):	No data available.
Lower explosive limit:	2.00 % (V)
Upper explosive limit:	12.00 % (V)
Vapor pressure: (; 25 °C (77 °F))	6.6 kPa
Vapor density:	No data available.
Density:	0.800 g/cm ³
Solubility:	Miscible (25 °C)
Partition coefficient: n-octanol/water:	Not determined
Auto ignition:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.
VOC content: (2010/75/EC)	90 - 100 %

Section 10. Stability and reactivity

Reactivity/Incompatible materials:	Reaction with strong oxidants.
Chemical stability:	Dissolves aluminium and zinc slowly with formation of hydrogen.
Hazardous decomposition products:	Stable under recommended storage conditions. Oxides of carbon.

Section 11. Toxicological information

Symptoms of Overexposure:	EYE: Irritation, conjunctivitis. RESPIRATORY: Irritation, coughing, shortness of breath, chest tightness. Prolonged or repeated contact may cause skin irritation. Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).
----------------------------------	--

Acute oral toxicity:

Propan-2-ol 67-63-0	Value type	LD50
	Value	5,840 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)
adipic acid 124-04-9	Value type	LD50
	Value	5,560 mg/kg
	Species	rat
	Method	OECD Guideline 401 (Acute Oral Toxicity)

Acute inhalative toxicity:

Propan-2-ol 67-63-0	Value type	LC50
	Value	72.6 mg/l
	Exposure time	4 h
	Species	rat
	Method	not specified
adipic acid 124-04-9	Value type	LC50
	Value	> 7.7 mg/l
	Exposure time	4 h
	Species	rat
	Method	OECD Guideline 403 (Acute Inhalation Toxicity)

Acute dermal toxicity:

Propan-2-ol 67-63-0	Value type	LD50
	Value	12,870 mg/kg
	Species	rabbit
	Method	OECD Guideline 402 (Acute Dermal Toxicity)
	adipic acid 124-04-9	Value type
Value		> 7,940 mg/kg
Species		rabbit
Method		not specified

Skin corrosion/irritation:

Propan-2-ol 67-63-0	Result	slightly irritating
	Exposure time	4 h
	Species	rabbit
	Method	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
	adipic acid 124-04-9	Result
Exposure time		24 h
Species		rabbit
Method		not specified

Serious eye damage/irritation:

Propan-2-ol 67-63-0	Result	Category II
	Exposure time	
	Species	rabbit
	Method	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
	adipic acid 124-04-9	Result
Exposure time		24 h
Species		rabbit
Method		OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitization:

Propan-2-ol 67-63-0	Result	not sensitising
	Test type	Buehler test
	Species	guinea pig
	Method	OECD Guideline 406 (Skin Sensitisation)
	adipic acid 124-04-9	Result
Test type		Guinea pig maximisation test
Species		guinea pig
Method		not specified

Germ cell mutagenicity:

Propan-2-ol 67-63-0	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Propan-2-ol 67-63-0	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)
Propan-2-ol 67-63-0	Result	negative
	Type of study / Route of administration	intraperitoneal
	Metabolic activation / Exposure time	
	Species	mouse
adipic acid 124-04-9	Result	negative
	Type of study / Route of administration	bacterial reverse mutation assay (e.g Ames test)
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 471 (Bacterial Reverse Mutation Assay)
adipic acid 124-04-9	Result	negative
	Type of study / Route of administration	mammalian cell gene mutation assay
	Metabolic activation / Exposure time	with and without
	Method	OECD Guideline 476 (In vitro Mammalian Cell Gene Mutation Test)

Repeated dose toxicity:

Propan-2-ol 67-63-0	Result	
	Route of application	inhalation: vapour
	Exposure time / Frequency of treatment	at least 104 w6 h/d, 5 d/w
	Species	rat
	Method	not specified

Section 12. Ecological information**Ecotoxicity:**

Do not empty into drains / surface water / ground water.

Toxicity:

Propan-2-ol 67-63-0	Value type	LC50
	Value	> 9,640 - 10,000 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas
	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propan-2-ol 67-63-0	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	Value type	NOEC
	Value	1,000 mg/l
	Acute Toxicity Study	Algae
	Exposure time	96 h
	Species	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	Value type	EC50
	Value	> 1,000 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)
adipic acid 124-04-9	Value type	LC50
	Value	97 mg/l
	Acute Toxicity Study	Fish
	Exposure time	96 h
	Species	Pimephales promelas

adipic acid 124-04-9	Method	OECD Guideline 203 (Fish, Acute Toxicity Test)
	Value type	EC50
	Value	46 mg/l
	Acute Toxicity Study	Daphnia
	Exposure time	48 h
	Species	Daphnia magna
adipic acid 124-04-9	Method	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
	Value type	EC50
	Value	59 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	NOEC
	Value	41 mg/l
	Acute Toxicity Study	Algae
	Exposure time	72 h
	Species	Pseudokirchneriella subcapitata
adipic acid 124-04-9	Method	OECD Guideline 201 (Alga, Growth Inhibition Test)
	Value type	EC50
	Value	4,747 mg/l
	Acute Toxicity Study	Bacteria
	Exposure time	3 h
	Species	activated sludge
	Method	OECD Guideline 209 (Activated Sludge, Respiration Inhibition Test)

Persistence and degradability:

Propan-2-ol 67-63-0	Result	readily biodegradable
	Route of application	aerobic
	Degradability	70 - 84 %
	Method	EU Method C.4-E (Determination of the "Ready" Biodegradability Closed Bottle Test)
adipic acid 124-04-9	Result	inherently biodegradable
	Route of application	aerobic
	Degradability	> 90 %
	Method	EU Method C.9 (Biodegradation: Zahn-Wellens Test)
	Result	readily biodegradable
	Route of application	aerobic
	Degradability	83 %
	Method	OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)

Bioaccumulative potential / Mobility in soil:

Propan-2-ol 67-63-0	LogPow	0.05
	Temperature	
	Method	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
adipic acid 124-04-9	LogPow	0.093
	Temperature	25 °C
	Method	other guideline:

Section 13. Disposal considerations**Product**

Method of disposal: Dispose of as hazardous waste in compliance with local and national regulations. Incineration under controlled conditions is recommended.

Packaging

Disposal of uncleaned packages: Dispose of as unused product.

Section 14. Transport information

Road transport ADR:

Class: 3
Packing group: II
Classification code: F1
Hazard ident. number: 33
UN no.: 1219
Label: 3
Technical name: ISOPROPANOL (solution)

Railroad transport RID:

Class: 3
Packing group: II
Classification code: F1
Hazard ident. number: 33
UN no.: 1219
Label: 3
Technical name: ISOPROPANOL (solution)

Inland water transport ADN:

Class: 3
Packing group: II
Classification code: F1
Hazard ident. number: 33
UN no.: 1219
Label: 3
Technical name: ISOPROPANOL (solution)

Marine transport IMDG:

Class: 3
Packing group: II
UN no.: 1219
Label: 3
EmS: F-E ,S-D
Seawater pollutant: -
Proper shipping name: ISOPROPANOL (solution)

Air transport IATA:

Class: 3
Packing group: II
Packaging instructions (passenger): 353
Packaging instructions (cargo): 364
UN no.: 1219
Label: 3
Proper shipping name: Isopropanol (solution)

Section 15. Regulatory information

Regulatory Information: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/213]
Industry Code of Practice on Chemicals Classification and Hazard Communication

Global inventory status:

Regulatory list	Notification
TSCA	yes
DSL	yes
KECI (KR)	yes
ISHL (JP)	yes
IECSC	yes
AICS	yes
PICCS (PH)	yes
CH INV	yes
EINECS	yes

Section 16. Other information

Disclaimer:

This Safety Data Sheet has been generated based on Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013 [P.U.(A) 310/213] only. No warranty or representation of any kind is given with respect to the substantive or export laws of any other jurisdiction or country. Please confirm that the information provided herein conforms to the substantive export or other law of any other jurisdiction prior to export. Please contact Henkel Product Safety and Regulatory Affairs for additional assistance. This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.

Dear Customer,

Henkel is committed to creating a sustainable future by promoting opportunities along the entire value chain. If you would like to contribute by switching from a paper to the electronic version of SDS, please contact the local Customer Service representative. We recommend to use a non-personal email address (e.g. SDS@your_company.com).