Safety Data Sheet according to (EC) No 1907/2006

SDS No. : 153932
V003.5

LOCTITE MF R301 5L known as MFR301 LIQUID FLUX

Revision: 01.06.2015
printing date: 01.02.2016
Replaces version from: 16.10.2013

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

1.1. Product identifier
LOCTITE MF R301 5L known as MFR301 LIQUID FLUX

Contains:
Propan-2-ol
Hydrocarbon aliphatic aromatic naphthenic C9-12
Rosin

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Liquid Flux

1.3. Details of the supplier of the safety data sheet
Henkel Ireland
Operations and Research Limited
Tallaght Business Park
Dublin 24

Ireland

Phone: +353 (14046444)
Fax-no.: +353 (14519926)

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (CLP):

Flammable liquids	Category 2
H225 Highly flammable liquid and vapor.	
Serious eye irritation	Category 2
H319 Causes serious eye irritation.	
Skin sensitizer	Category 1
H317 May cause an allergic skin reaction.	
Specific target organ toxicity - single exposure	Category 3
H336 May cause drowsiness or dizziness.	
Target organ: Central Nervous System	
Aspiration hazard	Category 1
H304 May be fatal if swallowed and enters airways.	

2.2. Label elements

Label elements (CLP):

Hazard pictogram:

Signal word: Danger

Hazard statement:
H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statement: Prevention
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 Wear protective gloves.
P261 Avoid breathing vapours.

Precautionary statement: Response
P331 Do NOT induce vomiting.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.

2.3. Other hazards
Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Declaration of the ingredients according to CLP (EC) No 1272/2008:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Propan-2-ol 67-63-0	200-661-7 01-2119457558-25	>= 50- <= 100 %	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	265-191-7	>= 10- < 20 %	Asp. Tox. 1 H304 STOT RE 1 H372
Glutaric acid 110-94-1	203-817-2	>= 1- < 3 %	Eye Irrit. 2 H319
Rosin 8050-09-7	232-475-7 01-2119480418-32	>= 1- < 10 %	Skin Sens. 1 H317
Adipic acid 124-04-9	204-673-3 01-2119457561-38	>= 1- < 3 %	Eye Irrit. 2 H319

For full text of the H - statements and other abbreviations see section 16 "Other information".
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Skin contact:
Rinse with running water and soap.
Seek medical advice.

Eye contact:
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical advice.

Ingestion:
Do not induce vomiting.
Seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed
SKIN: Rash, Urticaria.

EYE: Irritation, conjunctivitis.

ASPIRATION: Coughing, shortness of breath, nausea. Delayed effect: bronchopneumonia or pulmonary oedema

Vapors may cause drowsiness and dizziness.

Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures
Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.
Do not induce vomiting.
Seek medical attention from a specialist.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media:
Alcohol-resistant foam.
Carbon dioxide, foam, powder

5.2. Special hazards arising from the substance or mixture
Can form explosive gas/air mixtures.
Oxides of carbon.
Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters
Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Avoid contact with skin and eyes.
Wear protective equipment.

6.2. Environmental precautions
Do not let product enter drains.
Prevent further leakage or spillage if safe to do so.

6.3. Methods and material for containment and cleaning up
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.

6.4. Reference to other sections
See advice in section 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Use only in well-ventilated areas.
Keep away from sources of ignition - no smoking.
Wear suitable protective clothing, safety glasses and gloves.
See advice in section 8
Take measures to prevent the build-up of electrostatic charges.

Hygiene measures:
Good industrial hygiene practices should be observed.
Wash hands before work breaks and after finishing work.
Do not eat, drink or smoke while working.

7.2. Conditions for safe storage, including any incompatibilities
Store in a cool, well-ventilated place.
Keep away from sources of ignition.

7.3. Specific end use(s)
Liquid Flux

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure Limits

Valid for
Great Britain

Ingredient [Regulated substance]	ppm	mg/m³	Value type	Short term exposure limit category / Remarks	Regulatory list
Propan-2-ol 67-63-0 [PROPAN-2-OL]	500	1.250	Short Term Exposure Limit (STEL):		EH40 WEL
Propan-2-ol 67-63-0 [PROPAN-2-OL]	400	999	Time Weighted Average (TWA):		EH40 WEL
Rosin 8050-09-7 [ROSIN-BASED SOLDER FLUX FUME]		0,05	Time Weighted Average (TWA):		EH40 WEL
Rosin 8050-09-7 [ROSIN-BASED SOLDER FLUX FUME]		0,15	Short Term Exposure Limit (STEL):		EH40 WEL

Predicted No-Effect Concentration (PNEC):

Name on list	Environmental Compartment	Exposure period	Value				Remarks
			mg/l	ppm	mg/kg	others	
Propan-2-ol 67-63-0	aqua (freshwater)					140,9 mg/L	
Propan-2-ol 67-63-0	aqua (marine water)					140,9 mg/L	
Propan-2-ol 67-63-0	sediment (freshwater)				552 mg/kg		
Propan-2-ol 67-63-0	sediment (marine water)				552 mg/kg		
Propan-2-ol 67-63-0	soil				28 mg/kg		
Propan-2-ol 67-63-0	aqua (intermittent releases)					140,9 mg/L	
Propan-2-ol 67-63-0	STP					2251 mg/L	
Propan-2-ol 67-63-0	oral					160 mg/kg food	
Rosin 8050-09-7	aqua (freshwater)					0,005 mg/L	
Rosin 8050-09-7	aqua (marine water)					0,0005 mg/L	
Rosin 8050-09-7	sediment (freshwater)				108 mg/kg		
Rosin 8050-09-7	sediment (marine water)				10,8 mg/kg		
Rosin 8050-09-7	soil				21,4 mg/kg		
Rosin 8050-09-7	STP					1000 mg/L	
Adipic acid 124-04-9	STP					59,1 mg/L	
Adipic acid 124-04-9	aqua (freshwater)					0,126 mg/L	
Adipic acid 124-04-9	aqua (marine water)					0,0126 mg/L	
Adipic acid 124-04-9	aqua (intermittent releases)					0,46 mg/L	
Adipic acid 124-04-9	sediment (freshwater)				0,484 mg/kg		
Adipic acid 124-04-9	sediment (marine water)				0,0484 mg/kg		
Adipic acid 124-04-9	soil				0,0228 mg/kg		

Derived No-Effect Level (DNEL):

Name on list	Application Area	Route of Exposure	Health Effect	Exposure Time	Value	Remarks
Propan-2-ol 67-63-0	Workers	Dermal	Long term exposure - systemic effects		888 mg/kg bw/day	
Propan-2-ol 67-63-0	Workers	Inhalation	Long term exposure - systemic effects		500 mg/m3	
Propan-2-ol 67-63-0	general population	Dermal	Long term exposure - systemic effects		319 mg/kg bw/day	
Propan-2-ol 67-63-0	general population	Inhalation	Long term exposure - systemic effects		89 mg/m3	
Propan-2-ol 67-63-0	general population	oral	Long term exposure - systemic effects		26 mg/kg bw/day	
Rosin 8050-09-7	Workers	Inhalation	Long term exposure - systemic effects		176,32 mg/m3	
Rosin 8050-09-7	Workers	Dermal	Long term exposure - systemic effects		25 mg/kg bw/day	
Rosin 8050-09-7	general population	Inhalation	Long term exposure - systemic effects		52,174 mg/m3	
Rosin 8050-09-7	general population	Dermal	Long term exposure - systemic effects		15 mg/kg bw/day	
Rosin 8050-09-7	general population	oral	Long term exposure - systemic effects		15 mg/kg bw/day	
Adipic acid 124-04-9	general population	oral	Acute/short term exposure - systemic effects		19 mg/kg bw/day	
Adipic acid 124-04-9	general population	Dermal	Long term exposure - systemic effects		19 mg/kg bw/day	
Adipic acid 124-04-9	general population	oral	Long term exposure - systemic effects		19 mg/kg bw/day	
Adipic acid 124-04-9	general population	Inhalation	Long term exposure - systemic effects		65 mg/m3	
Adipic acid 124-04-9	Workers	Dermal	Acute/short term exposure - systemic effects		38 mg/kg bw/day	
Adipic acid 124-04-9	Workers	Inhalation	Acute/short term exposure - systemic effects		264 mg/m3	
Adipic acid 124-04-9	Workers	Inhalation	Acute/short term exposure - local effects		5 mg/m3	
Adipic acid 124-04-9	Workers	Dermal	Long term exposure - systemic effects		38 mg/kg bw/day	
Adipic acid 124-04-9	Workers	Inhalation	Long term exposure - systemic effects		264 mg/m3	
Adipic acid 124-04-9	Workers	Inhalation	Long term exposure - local effects		5 mg/m3	
Adipic acid 124-04-9	general population	Dermal	Acute/short term exposure - systemic effects		19 mg/kg bw/day	
Adipic acid 124-04-9	general population	Inhalation	Acute/short term exposure - systemic effects		65 mg/m3	

Biological Exposure Indices:
None

8.2. Exposure controls:

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.
Extraction is necessary to remove fumes evolved during reflow.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
Filter type: A

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.

Skin protection:
Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	liquid Pale yellow
Odor	hydrocarbons
Odour threshold	No data available / Not applicable
pH	No data available / Not applicable
Initial boiling point	82,0 °C (179.6 °F)
Flash point	14 °C (57.2 °F)
Decomposition temperature	No data available / Not applicable
Vapour pressure (25 °C (77 °F))	66 mbar
Density (25,0 °C (77 °F))	0,8010 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative) (Solvent: Water)	Soluble
Solidification temperature	No data available / Not applicable
Melting point	Not determined
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	
lower	2 %(V)
upper	12 %(V)

Partition coefficient: n-octanol/water	Not determined
Evaporation rate	No data available / Not applicable
Vapor density	Heavier than air
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity
Reaction with strong oxidants.
Dissolves aluminium and zinc slowly with formation of hydrogen.

10.2. Chemical stability
Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions
See section reactivity

10.4. Conditions to avoid
No decomposition if stored and applied as directed.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Oral toxicity:
May cause irritation to the digestive tract.
Ingestion of large quantities may cause liver or kidney damage.
Small amounts of liquid aspirated into the respiratory system during ingestion or from vomiting may cause bronchopneumonia or pulmonary oedema.

Inhalative toxicity:
Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Fumes evolved at soldering temperatures will irritate the nose, throat and lungs.

Skin irritation:
Prolonged or repeated contact may cause skin irritation.

Eye irritation:
Irritating to eyes.
Liquid may cause conjunctival irritation.

Sensitizing:
May cause sensitization by skin contact.

Acute oral toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Propan-2-ol 67-63-0	LD50	5.338 mg/kg	oral		rat	
Rosin 8050-09-7	LD50	2.800 mg/kg	oral		rat	
Adipic acid 124-04-9	LD50	5.560 mg/kg	oral		rat	

Acute inhalative toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Propan-2-ol 67-63-0	LC50	72,6 mg/l		4 h	rat	
Adipic acid 124-04-9	LC50	> 7,7 mg/l		4 h	rat	

Acute dermal toxicity:

Hazardous components CAS-No.	Value type	Value	Route of application	Exposure time	Species	Method
Propan-2-ol 67-63-0	LD50	12.870 mg/kg	dermal		rabbit	
Rosin 8050-09-7	LD50	> 2.000 mg/kg	dermal		rat	OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Propan-2-ol 67-63-0	slightly irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	slightly irritating		rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Rosin 8050-09-7	not irritating	4 h	rabbit	OECD Guideline 404 (Acute Dermal Irritation / Corrosion)
Adipic acid 124-04-9	slightly irritating		rabbit	

Serious eye damage/irritation:

Hazardous components CAS-No.	Result	Exposure time	Species	Method
Propan-2-ol 67-63-0	moderately irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	not irritating		rabbit	Draize Test
Rosin 8050-09-7	not irritating		rabbit	OECD Guideline 405 (Acute Eye Irritation / Corrosion)
Adipic acid 124-04-9	moderately irritating		rabbit	

Respiratory or skin sensitization:

Hazardous components CAS-No.	Result	Test type	Species	Method
Propan-2-ol 67-63-0	not sensitising	Buehler test	guinea pig	
Adipic acid 124-04-9	not sensitising		guinea pig	

Germ cell mutagenicity:

Hazardous components CAS-No.	Result	Type of study / Route of administration	Metabolic activation / Exposure time	Species	Method
Propan-2-ol 67-63-0	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		
Rosin 8050-09-7	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		OECD Guideline 471 (Bacterial Reverse Mutation Assay)
Adipic acid 124-04-9	negative	bacterial reverse mutation assay (e.g Ames test)	with and without		

Repeated dose toxicity

Hazardous components CAS-No.	Result	Route of application	Exposure time / Frequency of treatment	Species	Method
Propan-2-ol 67-63-0	NOAEL=1500	inhalation	13 weeks6 hours/day, 5 days/week	mouse	
Propan-2-ol 67-63-0	LOAEL=5000	inhalation	13 weeks6 hours/day, 5 days/week	mouse	

SECTION 12: Ecological information

General ecological information:
The mixture is classified based on the available hazard information for the ingredients as defined in the classification criteria for mixtures for each hazard class or differentiation in Annex I to Regulation 1272/2008/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

12.1. Toxicity

Ecotoxicity:
Do not empty into drains / surface water / ground water.
No data available for the product.

Hazardous components CAS-No.	Value type	Value	Acute Toxicity Study	Exposure time	Species	Method
Propan-2-ol 67-63-0	LC50	9.640 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Propan-2-ol 67-63-0	EC50	13.299 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Propan-2-ol 67-63-0	EC50	> 1.000 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
	NOEC	1.000 mg/l	Algae	96 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	OECD Guideline 201 (Alga, Growth Inhibition Test)
Propan-2-ol 67-63-0	NOEC	30 mg/l	chronic Daphnia	21 d	Daphnia magna	OECD 211 (Daphnia magna, Reproduction Test)
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	LC50	76 mg/l	Fish	96 h	Brachydanio rerio (new name: Danio rerio)	
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	EC50	40 mg/l	Daphnia	24 h	Daphnia magna	
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	EC50	450 mg/l	Algae	96 h	Selenastrum capricornutum (new name: Pseudokirchnerella subcapitata)	
Glutaric acid 110-94-1	LC50	330 mg/l	Fish	24 h	Lepomis macrochirus	OECD Guideline 203 (Fish, Acute Toxicity Test)
Rosin 8050-09-7	LC50	> 1.000 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Rosin 8050-09-7	EC50	911 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Rosin 8050-09-7	EC50	> 100 mg/l	Algae	72 h	Scenedesmus subspicatus (new name: Desmodesmus subspicatus)	DIN 38412-09
Adipic acid 124-04-9	LC50	97 mg/l	Fish	96 h	Pimephales promelas	OECD Guideline 203 (Fish, Acute Toxicity Test)
Adipic acid 124-04-9	EC50	85,7 mg/l	Daphnia	48 h	Daphnia magna	OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Adipic acid 124-04-9	EC50	> 100 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)
	EC0	> 100 mg/l	Algae			OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

Persistence and Biodegradability:
No data available for the product.

Hazardous components CAS-No.	Result	Route of application	Degradability	Method

Propan-2-ol 67-63-0	readily biodegradable	aerobic	70 - 84 %	EU Method C.4-E (Determination of the "Ready" BiodegradabilityClosed Bottle Test)
Hydrocarbon aliphatic aromatic naphthenic C9-12 64742-88-7	readily biodegradable, but failing 10-day window	aerobic	55 - 63 %	OECD Guideline 301 B (Ready Biodegradability: CO2 Evolution Test)
Glutaric acid 110-94-1	readily biodegradable		100 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)
Rosin 8050-09-7		aerobic	36 - 46 %	OECD Guideline 301 F (Ready Biodegradability: Manometric Respirometry Test)
Adipic acid 124-04-9	readily biodegradable	no data	96 %	OECD Guideline 301 E (Ready biodegradability: Modified OECD Screening Test)

12.3. Bioaccumulative potential / 12.4. Mobility in soil

Mobility:
The product evaporates readily.

Bioaccumulative potential:
Octanol/Water distribution coefficient: Not determined

Hazardous components CAS-No.	LogKow	Bioconcentration factor (BCF)	Exposure time	Species	Temperature	Method
Propan-2-ol 67-63-0	0,05					OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)
Glutaric acid 110-94-1	-0,29					
Rosin 8050-09-7	3 - 6,2					OECD Guideline 117 (Partition Coefficient (n-octanol / water), HPLC Method)
Adipic acid 124-04-9	0,081				25 °C	OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.5. Results of PBT and vPvB assessment

Hazardous components CAS-No.	PBT/vPvB
Propan-2-ol 67-63-0	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Rosin 8050-09-7	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.
Adipic acid 124-04-9	Not fulfilling Persistent, Bioaccumulative and Toxic (PBT), very Persistent and very Bioaccumulative (vPvB) criteria.

12.6. Other adverse effects

No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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

Disposal of uncleaned packages:
Dispose of as unused product.

Waste code
14 06 03 - other solvents and solvent mixtures
The valid EWC waste code numbers are source-related. The manufacturer is therefore unable to specify EWC waste codes for the articles or products used in the various sectors. The EWC codes listed are intended as a recommendation for users. We will be happy to advise you.

SECTION 14: Transport information

14.1. UN number

ADR	1993
RID	1993
ADN	1993
IMDG	1993
IATA	1993

14.2. UN proper shipping name

ADR	FLAMMABLE LIQUID, N.O.S. (Isopropanol,Naphtha)
RID	FLAMMABLE LIQUID, N.O.S. (Isopropanol,Naphtha)
ADN	FLAMMABLE LIQUID, N.O.S. (Isopropanol,Naphtha)
IMDG	FLAMMABLE LIQUID, N.O.S. (Isopropanol,Naphtha)
IATA	Flammable liquid, n.o.s. (Isopropanol,Naphtha)

14.3. Transport hazard class(es)

ADR	3
RID	3
ADN	3
IMDG	3
IATA	3

14.4. Packaging group

ADR	II
RID	II
ADN	II
IMDG	II
IATA	II

14.5. Environmental hazards

ADR	not applicable
RID	not applicable
ADN	not applicable
IMDG	not applicable
IATA	not applicable

14.6. Special precautions for user

ADR	Special provision 640D

	Tunnelcode: (D/E)
RID	Special provision 640D
ADN	Special provision 640D
IMDG	not applicable
IATA	not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content	90 - 95 %

15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

National regulations/information (Great Britain):

Remarks	The Health & Safety at Work Act 1974. The Control of Substances Hazardous to Health Regulations. L5:General Approved Code of Practice to the COSHH Regulations. HS(G)97:A Step by Step Guide to the COSHH Regulations. HS(G)193:COSHH essentials: Easy steps to control chemicals. IND (G)248L:Solder fume and you. IND(G)249L:Controlling health risks from rosin (colophony) based solder fluxes. HS(G)51:The Storage of Highly Flammable Liquids in Containers. HS(G)140:The Safe Use and Handling of Highly Flammable Liquids EH9:The Spraying of Highly Flammable Liquids.

SECTION 16: Other information

The labelling of the product is indicated in Section 2. The full text
of all abbreviations indicated by codes in this safety data sheet are as follows:

H225 Highly flammable liquid and vapor.
H304 May be fatal if swallowed and enters airways.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H372 Causes damage to organs through prolonged or repeated exposure.

Further information:
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.
This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.

Label elements (DPD):

F - Highly flammable

Xn - Harmful

Risk phrases:

R11 Highly flammable.
R36 Irritating to eyes.
R43 May cause sensitisation by skin contact.
R65 Harmful: may cause lung damage if swallowed.
R67 Vapours may cause drowsiness and dizziness.

Safety phrases:

S16 Keep away from sources of ignition - No smoking.
S24 Avoid contact with skin.
S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37 Wear suitable gloves.
S51 Use only in well-ventilated areas.
S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Additional information:
When heated fumes may cause sensitisation by inhalation.

Contains:
Hydrocarbon aliphatic aromatic naphthenic C9-12,
Rosin

Relevant changes in this safety data sheet are indicated by vertical lines at the left margin in the body of this document. Corresponding text is displayed in a different color on shadowed fields.