

**MATERIAL SAFETY DATA SHEET** according to 1907/2006/EC, article 31

Trade name: MARTIN Flux Pen  
Article No: HT00.0010  
Issue: December 2019

**1. Identification of the substance / preparation and of the company**

**1.1 Identification of the substance / preparation**

MARTIN Flux pen F-SW34, no clean, L3

**1.2 Application of the substance / preparation**

Rosin- spray- and foam flux,

In accordance with: DIN EN 29454-1: 1.1.3.;A ANSI J STD-004; RO L0

**1.3 Company/undertaking identification**

MARTIN GmbH

Industriestrasse 17

D- 82110 Germering

Phone: +49 [0]89 8941898-0

Fax: +49 [0]89 8941898-19

www.martin-smt.de

**1.4 Emergency telephone**

Please contact the nearest poison emergency center.

**2. Hazards identification**

**2.1 Classification of the substance or mixture:**

Classification according to Regulation (EC) No. 1272/2008 (CLP- Regulation):



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS07

Eye Irrit. 2 H319 Causes serious eye irritation.

STOT SE 3 H336 May cause drowsiness or dizziness.

**2.2 Label elements**

**Labelling according to Regulation (EC) No 1272/2008**

The product is classified and labelled according to the CLP regulation.

**2.3 Hazards pictograms**



GHS07



GHS02

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**2.4 Signal word**

Danger

**2.5 Hazard-determining components of labelling**

Proban-2-ol

**2.6 Hazard statements**

H225 Highly flammable liquid and vapour

H319 Causes serious eye irritation

H336 May cause drowsiness or dizziness

**2.7 Precautionary statements**

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P261 Avoid breathing dust/fume/gas/mist/vapours/ spray.

P271 Use only outdoors or in a well-ventilated area

P280 Wear protective gloves/protective clothing/eye protection/face protection

P303+ P361+ P353 IF ON SKIN (or hair): 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.

P312 Call a POISON CENTER/doctor/.../if you feel unwell.

P360

P337+P313 If eye irritation persists: Get medical advice/attention

P403+P233 Store in a well-ventilated place. Keep container tightly closed

P501 Dispose of contents/container to ...

Other hazards

**Results of PBT and vPvB assessment**

**PBT:** Not applicable.

**vPvB:** Not applicable.

**3. Composition/Information on ingredients**

**3.1 Chemical characterization:**

Mixtures

**3.2 Description:**








Mixture of substances listed below with nonhazardous additions.

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### 3.3 Dangerous components:

CAS: 67-63-0 EINECS:200-661-7 Indexnr. 603-117-00-0 RTECS:NT 8050000	propan-2-ol	 Flam. Liq. 3, H225;  Eye Irrit. 2, H319; STOT SE 3, H336	60-90%
CAS: 124-04-9 EINECS: 204-673-3 Indexnr. 607-144-00-9 RTECS:AU 8400000	adipic acid	 Eye Irrit. 2, H319	≤2,5%
CAS: 8050-09-7 EINECS:232-475-7 Indexnr. 650-015-00-7	colophony	 Skin Sens. 1, H317	≤1%
CAS: 85-42-7 EINECS: 201-604-9 Indexnr. 607-102-00-X	Cyclohexan-1,2-dicarboxylic acid anhydride	 Resp. Sens. 1, H334;  Eye Dam. 1, H318;  Skin Sens. 1, H317	≤1%

#### SVHC

**CAS:85-42-7 Cyclohexan-1,2- dicarboxylic acid anhydride**

### 3.4 Additional information:

For the wording of the listed risk phrases refer to section 16.

## 4. First aid measures

#### 4.1 General information:

Immediately remove any clothing soiled by the product.

#### 4.2 After inhalation:

Supply fresh air; consult doctor in case of complaints.

#### 4.3 After Skin Contact:

Immediately rinse with water.

#### 4.4 After eye contact:

Rinse opened eye for several minutes under running water. If symptoms persist consult doctor

#### 4.5 After swallowing:

If symptoms persist consult doctor.

#### 4.6 Information for doctor

##### 4.6.1 Most important symptoms and effects, both acute and delayed

No further relevant information available.

##### 4.6.2 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## 5. Firefighting measures

#### 5.1 Suitable extinguishing agents

CO<sub>2</sub>, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

#### 5.2 For safety reasons unsuitable extinguishing agents

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Water with full jet

**5.3 Special hazards arising from the substance or mixture:**

No further relevant information available.

**5.4 Protective equipment:**

No special measures required

**6. Accidental release measures**

**6.1 Personal precautions, protective equipment and emergency procedures**

Wear protective equipment. Keep unprotected persons away.

**6.2 Environmental precautions**

Do not allow to enter sewers/ surface or ground water.

**6.3 Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**6.4 Additional information**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

**7. Handling and storage**

**7.1 Handling**

**7.1.1 Information for safe handling:**

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

**7.1.2 Information about fire - and explosion protection:**

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges

**7.2 Conditions for safe storage, including any incompatibilities**

**7.2.1 Requirements to be met by storerooms and receptacles:**

Store in a cool location

**7.2.2 Information about storage in one common storage facility**

No special requirements.

**7.2.3 Further information on storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well-sealed receptacles.

**7.2.4 Specific end use(s)**

No further relevant information available.

**8. Exposure controls / personal protection**

**8.1 Additional information about design of technical facilities:**

No further data; see item 7.

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**8.2 Control parameters**

**8.2.1 Ingredients with limit values that require monitoring at the workplace:**

<b>67-63-0 propan-2-ol</b>	
WEL	Long-term value: 500 mg/m <sup>3</sup> , 200 mg/m <sup>3</sup> , 2(II);DFG, Y
CAS: 124-04-9 Adipic acid	
WEL	Long-term value: 2 E mg/m <sup>3</sup> 2(I);DFG, Y
CAS: 8050-09-7 colophony Compare section IV	
CAS: 85-42-7 Cyclohexan-1,2- dicarboxylic acid anhydride Compare section IV; Steam and aerosol	

**8.2.2 Components with biological limit values:**

**CAS: 67-63-0 propan-2-ol**

**25mg/l**

Test material: whole blood  
Time of sampling: end of exposure or end of shift  
Parameters: Acetone

**25mg/l**

Test material: urine  
Time of sampling: end of exposure or end of shift  
Parameters: Acetone

**8.2.3 Additional information:**

The lists valid during the making were used as basis.

**8.3 Personal protective equipment:**

**8.3.1 General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing  
Wash hands before breaks and at the end of work.  
Avoid contact with the eyes.  
Avoid contact with the eyes and skin.

**8.3.2 Respiratory protection:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

**8.3.3 Protection of hands:**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

**Material of gloves:**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.



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**Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

**8.3.4 Eye Protection:**

Tightly sealed goggles



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**9. Physical and chemical properties**

· <b>Information on basic physical and chemical properties</b>	
· <b>General Information</b>	
· <b>Appearance:</b>	
<b>Form:</b>	Fluid
<b>Colour:</b>	According to product specification
· <b>Odour:</b>	Characteristic
· <b>Odour threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	82 °C
· <b>Flash point:</b>	12 °C
· <b>Flammability (solid, gaseous):</b>	Not applicable.
· <b>Ignition temperature:</b>	425 °C
· <b>Decomposition temperature:</b>	Not determined.
· <b>Self-igniting:</b>	Product is not self-igniting.
· <b>Danger of explosion:</b>	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapour pressure at 20°C:</b>	Not determined.
· <b>Density:</b>	Not determined.
· <b>Relative density</b>	Not determined.
· <b>Vapour density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	93.3 %
<b>Water:</b>	3.5 %
· <b>VOC (EC):</b>	93,26 %
<b>Other information</b>	No further relevant information available.

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**10. Stability and Reactivity**

**10.1 Reactivity**

No further relevant information available.

**10.2 Chemical stability**

No decomposition if used according to specifications.

**10.3 Possibility of hazardous reactions**

No dangerous reactions known.

**10.4 Conditions to avoid**

No further relevant information available.

**10.5 Incompatible materials**

No further relevant information available.

**10.6 Hazardous decomposition products:**

No dangerous decomposition products known.

**11. Toxicological information**

**11.1 Acute toxicity:**

Based on available data, the classification criteria are not met.

· LD/LC50 values relevant for classification:			
67-63-0 propan-2-ol			
Oral	LD50	5045 mg/kg (rat)	
Dermal	LD50	12800 mg/kg (rabbit)	
Inhalative	LC50/4 h	30 mg/l (rat)	

**11.2 Primary irritant effect:**

**11.2.1 Skin corrosion/irritation**

Based on available data, the classification criteria are not met

**11.2.2 Serious eye damage/irritation**

Causes serious eye irritation

**11.2.3 Respiratory or skin sensitization**

Based on available data, the classification criteria are not met

**11.3 CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

**11.3.1 Germ cell mutagenicity**

Based on available data, the classification criteria are not met

**11.3.2 Carcinogenicity**

Based on available data, the classification criteria are not met

**11.3.3 Reproductive toxicity**

Based on available data, the classification criteria are not met

**11.3.4 STOT-single exposure**

May cause drowsiness or dizziness

**11.3.5 STOT-repeated exposure**

Based on available data, the classification criteria are not met

**11.3.6 Aspiration hazard**

Based on available data, the classification criteria are not met



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**12. Ecological information**

**12.1 Toxicity**

**12.1.1 Aquatic toxicity:**

No further relevant information available.

**12.1.2 Persistence and degradability**

No further relevant information available.

**12.2 Behaviour in environmental systems:**

**12.2.1 Bioaccumulative potential**

No further relevant information available

**12.2.2 Mobility in soil**

No further relevant information available

**12.3 General Notes**

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water  
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**12.4 Results of PBT and vPvB assessment**

PBT: Not applicable

vPvB: Not applicable

**12.5 Other adverse effects**

No further relevant information available

**13. Disposal considerations**

**13.1 Waste treatment methods**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

**13.2 Uncleaned packaging:**


Disposal must be made according to official regulations.

**14. Transport information**

· UN-Number	
· ADR, IMDG, IATA	UN1219
· UN proper shipping name	
· ADR	1219 ISOPROPANOL (Isopropyl alcohol), mixture
· IMDG	ISOPROPANOL (Isopropyl alcohol), mixture
· IATA	Isopropanol mixture

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· Transport hazard class(es)	
· ADR, IMDG, IATA	
	
· Class	3 Flammable liquids.
· Label	3
· Packing group	
· ADR, IMDG, IATA II	
· Environmental hazards: Not applicable.	
· Special precautions for user Warning: Flammable liquids.	
· Danger code (Kemler):	33
· EMS Number:	F-E,S-D
· Stowage Category	B
· Transport in bulk according to Annex II of Marpol and the IBC Code Not applicable.	
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· UN "Model Regulation":	UN 1219 Isopropanol (Isopropyl alcohol), mixture 3, II

**15. Regulatory information**

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- 15.2 Directive 2012/18/EU**
- 15.3 Named dangerous substances - ANNEX I**  
None of the ingredients is listed.
- 15.4 Seveso category**  
P5c FLAMMABLE LIQUIDS
- 15.5 Qualifying quantity (tonnes) for the application of lower-tier requirements**  
5,000 t

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**15.6 Qualifying quantity (tonnes) for the application of upper-tier requirements**

50,000 t

**15.7 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

**· National regulations:**

**Technical instruction air:**

**Class: Percentage:**

Water 3,5

I 0,4

NK 93,3

Water hazard class: WGK 1 (Self-classification) weakly water endangering

**· Other regulations, limitations and prohibitive regulations ·**

**Substances of very high concern (SVHC) according to REACH, Article 57**

CAS: 85-42-7 cyclohexane-1,2-dicarboxylic anhydride ·

**15.8 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16. Other Information**

The information in this data sheet is based on our present state of knowledge and is provided without warranty of product features and shall not establish a legally valid contractual relationship.

**16.1 Relevant phrases**

H225 Highly flammable liquid and vapour  
H317 May Causes an allergic skin reaction  
H318 Causes serious eye damag  
H319 Causes serious eye irritation  
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H336 May cause drowsiness or dizziness

**16.2 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 Harmonised 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 (division of the American Chemical Society)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
Flam. Liq. 2: Flammable liquids, Hazard Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2  
Skin Sens 1: Sensitisation – Skin, Hazard Category 1  
STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3