Trodat GmbH
4600 Wels

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

1.1 Product identifier

Trodat Maxlight Premium Flash Ink Red

1.2 Relevant identified uses of the substance or mixture and uses advised against

1.2.1 Relevant uses

Ink

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company

Trodat GmbH
Linzerstr. 156
4600 Wels / AUSTRIA
Phone +43 (0) 7242 239 - 0
Fax +43 (0) 7242 239 - 940
Homepage www.trodat.net
E-mail trodat@trodat.net

Address enquiries to

Technical information trodat@trodat.net

Safety Data Sheet sdb@chemiebuero.de

1.4 Emergency telephone number

Advisory body +43 (0) 1 406 43 43 (24h)

Company +43 (0) 7242 239 - 0 Mo-Fr 8:00 - 16:00

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Eye Dam. 1: H318 Causes serious eye damage.
Skin Irrit. 2: H315 Causes skin irritation.
Skin Sens. 1: H317 May cause an allergic skin reaction.
Acute Tox. 4: H332 Harmful if inhaled.

2.2 Label elements

The product is classified as hazardous in accordance to OSHA Standard 29 CFR 1910.1200 (HCS 2012)

Hazard pictograms

Signal word DANGER

Hazard statements

H318 Causes serious eye damage.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H332 Harmful if inhaled.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P261 Avoid breathing vapors/spray.
P264 Wash hands thoroughly after handling.
P270 Do no eat, drink or smoke when using this product.
P280 Wear protective gloves/eye protection/face protection.
P302+P352 IF ON SKIN: Wash with plenty of water/soap.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

2.3 Other hazards

Other hazards Further hazards were not determined with the current level of knowledge.

SECTION 3: Composition / Information on ingredients

3.1 Substances

The product is a mixture.

3.2 Mixtures

Range [%]	Substance
30 - 40	(Z)-N-metil-N-(1-oxo-9-octadecenil)glicina
	CAS: 110-25-8
20 - 30	2-Ethylhexane-1,3-diol
	CAS: 94-96-2
10 - 15	Rosin ester
4 - 10	Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2)
	CAS: 66142-95-8
2 - 5	Colorant (Orange Toner HM-15)

Comment on component parts None.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information
Take off contaminated clothing and wash before reuse.

Inhalation
Ensure supply of fresh air.
Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

Skin contact
In case of contact with skin wash off immediately with water.
If skin irritation or rash occurs: Get medical advice/attention.

Eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult a doctor immediately.

Ingestion
Consult a doctor immediately.
Rinse out mouth and give plenty of water to drink.
Do not induce vomiting.

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.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media
foam, dry powder, water spray jet, carbon dioxide

Extinguishing media that must not be used
Full water jet.

5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.
Not combusted hydrocarbons.
Carbon monoxide (CO)
Carbon dioxide (CO2)
Nitrogen oxides (NOx).

5.3 Advice for firefighters

Use self-contained breathing apparatus.

Cool containers at risk with water spray jet.
Collect contaminated firefighting water separately, must not be discharged into the drains.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.

6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections

See SECTION 8+13

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only in well-ventilated areas.
Avoid formation of aerosols.
Avoid contact with eyes and skin. Use personal protective equipment.

Keep away from open flames, hot surfaces and sources of ignition.

Do not eat, drink, smoke or take drugs at work.
Wash face and/or hands before break and end of work.
Use barrier skin cream.
Take off contaminated clothing and wash before reuse.

7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.
Prevent penetration into the ground.
Provide floor with bunding.

Do not store together with oxidizing agents.

Keep container in a well-ventilated place.
Keep container tightly closed.
Protect from heat/overheating and from sun.
Keep in a cool place. Store in a dry place.

7.3 Specific end use(s)

See product use, SECTION 1.2

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Ingredients with occupational exposure limits to be monitored (US)

not applicable

8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.
Eye protection	Tightly fitting goggles. (EN 166:2001)
Hand protection	The details concerned are recommendations. Please contact the glove supplier for further information. 0,7 mm: Butyl rubber, >480 min (EN 374-1/-2/-3).
Skin protection	Protective clothing (EN 340)
	Avoid contact with eyes and skin. Do not breathe vapor/spray. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
Respiratory protection	In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection. Short term: filter apparatus, combination filter A-P2.
Thermal hazards	not applicable
Delimitation and monitoring of the environmental exposition	Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Viscous liquid
Color	red
Odor	mild
Odor threshold	No information available.
pH-value	No information available.
pH-value [1%]	No information available.
Boiling point [°C]	No information available.
Flash point [°C]	not applicable
Flammability [°C]	not applicable
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapor pressure/gas pressure [kPa]	No information available.
Bulk density [kg/m³]	not applicable
Solubility in water	soluble
Partition coefficient [n-octanol/water]	No information available.
Viscosity	No information available.
Relative vapor density determined in air	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	not self-igniting
Decomposition temperature [°C]	No information available.

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Strong heating.
Keep away from open flames, hot surfaces and sources of ignition.

10.5 Incompatible materials

See SECTION 10.3.

10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.
In the event of fire: See SECTION 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Product
ATE-mix, inhalativ (mist), 3,23 - 4,42 mg/l.

Substance
2-Ethylhexane-1,3-diol, CAS: 94-96-2
LD50, oral, Rat: > 2000 mg/kg.
LD50, dermal, Rabbit: > 2000 mg/kg.
(Z)-N-metil-N-(1-oxo-9-octadecenil)glicina, CAS: 110-25-8
LD50, oral, Rat: >2000 mg/kg bw.
LC50, inhalative, Rat: 1,37 mg/L (4h).
Colorant (Orange Toner HM-15)
LD50, inhalativ (dust), 2,82 mg/l/4h.
LD50, oral, > 5000 mg/kg.

Serious eye damage/irritation	Risk of serious damage to eyes. Calculation method
Skin corrosion/irritation	Irritant Calculation method
Respiratory or skin sensitisation	May cause an allergic skin reaction. Calculation method
Specific target organ toxicity — single exposure	Based on the information available, the classification criteria have not been fulfilled.
Specific target organ toxicity — repeated exposure	Based on the information available, the classification criteria have not been fulfilled.
Mutagenicity	Based on the information available, the classification criteria have not been fulfilled.
Reproduction toxicity	Based on the information available, the classification criteria have not been fulfilled.
Carcinogenicity	Based on the information available, the classification criteria have not been fulfilled.
Aspiration hazard	Based on the information available, the classification criteria have not been fulfilled.
General remarks	May cause respiratory tract irritation. Toxicological data of complete product are not available.

SECTION 12: Ecological information

12.1 Toxicity

Substance
2-Ethylhexane-1,3-diol, CAS: 94-96-2
EC50, (24h), Daphnia magna: 811 mg/l.
LC0, (48h), Leuciscus idus: > 1000 mg/l.
EC10, Pseudomonas putida: 1300 mg/l (18 h).
(Z)-N-metil-N-(1-oxo-9-octadecenil)glicina, CAS: 110-25-8
LC50, (96h), Danio rerio: 1 - 10 mg/L.
EC50, (48h), Daphnia magna: 0,68 mg/L.

12.2 Persistence and degradability

Behaviour in environment compartments	No information available.
Behaviour in sewage plant	No information available.
Biological degradability	No information available.

12.3 Bioaccumulative potential

CAS 94-96-2: log Pow: 1,6 (Lit.)

12.4 Mobility in soil

Spillages may penetrate the soil causing ground water contamination.

12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

12.6 Other adverse effects

Ecological data of complete product are not available.
Do not discharge product unmonitored into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Coordinate disposal with the authorities if necessary.
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.
Uncontaminated packaging may be taken for recycling.

RCRA Hazard Class (40CFR 261)

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities.

SECTION 14: Transport

14.1 UN number

Transport by land according to ADR/RID	3082
Inland navigation (ADN)	3082
Marine transport in accordance with IMDG	3082
Air transport in accordance with IATA	3082
DOT Road Shipment Information (49 CFR)	3082

14.2 UN proper shipping name

Transport by land according to ADR/RID	Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine; Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2))
- Classification Code	M6
- Label	
- ADR LQ	5 l
- ADR 1.1.3.6 (8.6)	Transport category (tunnel restriction code) 3 (-)
Inland navigation (ADN)	Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine; Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2))
- Classification Code	M6
- Label	
Marine transport in accordance with IMDG	Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2))
- EMS	F-A, S-F
- Label	
- IMDG LQ	5l
Air transport in accordance with IATA	Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2))
- Label	
DOT Road Shipment Information (49 CFR)	UN/NA 3082 Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-sulphonato(3-)]chromate(3-), compound with dicyclohexylamine (1:2))
- Label	

14.3 Transport hazard class(es)

Transport by land according to ADR/RID	9
Inland navigation (ADN)	9
Marine transport in accordance with IMDG	9
Air transport in accordance with IATA	9
DOT Road Shipment Information (49 CFR)	9

14.4 Packing group

Transport by land according to ADR/RID	III
Inland navigation (ADN)	III
Marine transport in accordance with IMDG	III
Air transport in accordance with IATA	III
DOT Road Shipment Information (49 CFR)	III

14.5 Environmental hazards

Transport by land according to ADR/RID	yes
Inland navigation (ADN)	yes
Marine transport in accordance with IMDG	MARINE POLLUTANT
Air transport in accordance with IATA	yes
DOT Road Shipment Information (49 CFR)	yes

14.6 Special precautions for user

Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available.

SECTION 15: Regulatory information

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

US Regulations

National regulations	29 CFR 1910.1200-HCS 2012, OSHA-PEL, ACGIH-TLV, NTP, IARC, SARA Title III, NFPA, TSCA, California - Prop. 65
- SARA, 302	This product does not contain any ingredients regulated under this list.
- SARA, 311	Acute toxicity (inhalativ) Serious eye damage Skin Sensitization Skin Irritation
- SARA, 313	This product does not contain any ingredients regulated under this list.
- CA Proposition 65	No chemical substances in this material are named on the California P65 list.
- TSCA	All chemical substances in this material are included on or exempted from listing on the TSCA Inventory.
- FDA	No information available.
American Conference of Governmental Industrial Hygienists - ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcino-gen by ACGIH.
International Agency for Research on Cancer IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
National Toxicology Program - NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
HAP-VOC	HAP's-content: CAS 66142-95-8 (Chromium Compounds).
Transport-regulations	DOT-Classification, ADR (2019); IMDG-Code (2019, 39. Amdt.); IATA-DGR (2020)

15.2 Chemical safety assessment

For this product a chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Abbreviations and acronyms:

ACGIH = American Conference of Governmental Industrial Hygienists;
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route;
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses;
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure;
CAS = Chemical Abstracts Service;
CERCLA = Comprehensive Environmental Response, Compensation and Liability Act;
CFR = Code of Federal Regulations;
CPR = Controlled Products Regulations;
DMEL = Derived Minimum Effect Level;
DNEL = Derived No Effect Level;
DOT = Department of Transportation;
EC50 = Median effective concentration;
EPA = Environmental Protection Agency;
GHS = Globally Harmonized System of Classification and Labelling of Chemicals;
IATA = International Air Transport Association;
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk;
IC50 = Inhibition concentration, 50%;
IMDG = International Maritime Code for Dangerous Goods;
IARC = International Agency of Research on Cancer;
IATA = International Air Transport Association;
TSCA = Toxic Substance Control Act;
HMIS = Hazardous Materials Identification System;
NFPA = National Fire Protection Association;
NIOSH = National Institute for Occupational Safety and Health;
OSHA = Occupational Safety and Health Administration;
LC50 = Lethal concentration, 50%;
LD50 = Median lethal dose, 50%;
MARPOL = International Convention for the Prevention of Marine Pollution from Ships;
PBT = Persistent, Bioaccumulative and Toxic substance;
PNEC = Predicted No-Effect Concentration;
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals;
SARA = Superfund Amendments and Reauthorization Act;
TLV®/TWA = Threshold limit value – time-weighted average;
TLV®STEL = Threshold limit value – short-time exposure limit;
VOC = Volatile Organic Compounds;
vPvB = very Persistent and very Bioaccumulative;

16.2 Ratings

NFPA Ratings

TOP, FLAMMABILITY: 1 - Slight Hazard
LEFT, HEALTH: 2 - Moderate Hazard
RIGHT, REACTIVITY: 0 - Minimal Hazard
BOTTOM, SPECIAL NOTICE: -

HMIS Ratings

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0
PERSONAL PROTECTION	X

2 - Moderate Hazard
1 - Slight Hazard
0 - Minimal Hazard
X - Personal protection rating to be supplied by user depending on use conditions

PERSONAL PROTECTION:

A - Safety Glasses

B - Safety Glasses and Gloves

C - Safety Glasses, Gloves and Protection Apron

D - Face Shield, Gloves and Protection Apron

E - Safety Glasses, Gloves and Dust Respirator

F - Safety Glasses, Gloves, Protection Apron and Dust Respirator

G - Safety Glasses, Gloves and Vapor Respirator.

H - Splash Goggles, Gloves, Protection Apron and Vapor Respirator.

I - Safety Glasses, Gloves, Dust Respirator and Vapor Respirator.

J - Splash Goggles, Gloves, Protection Apron, Dust Respirator and Vapor Respirator.

K - Airline Mask or Hood, Gloves, Full Suit and Boots.

X - Personal protection rating to be supplied by user depending on use conditions

Modified position

SECTION 2 been added: P261 Avoid breathing vapors/spray.

SECTION 2 been added: H317 May cause an allergic skin reaction.

SECTION 2 been added: Skin Sens. 1

SECTION 2 been added: H315 Causes skin irritation.

SECTION 2 been added: Skin Irrit. 2

SECTION 2 been added: H332 Harmful if inhaled.

SECTION 2 deleted: H302 Harmful if swallowed.

SECTION 2 deleted: [x] % of the mixture consists of ingredient(s) of unknown toxicity.

SECTION 4 been added: If skin irritation or rash occurs: Get medical advice/attention.

SECTION 8 been added: In the event of occupational exposure limits being exceeded or of inadequate ventilation: wear appropriate respiratory protection.

SECTION 11 deleted: May cause skin irritation

SECTION 11 been added: Irritant

SECTION 11 been added: Calculation method

SECTION 11 deleted: Based on the information available, the classification criteria have not been fulfilled.

SECTION 11 been added: May cause an allergic skin reaction.

SECTION 11 been added: Calculation method

SECTION 11 deleted: Based on the information available, the classification criteria have not been fulfilled.

SECTION 12 been added: Spillages may penetrate the soil causing ground water contamination.

SECTION 14 been added: Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine; Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3-methyl-5-oxo-1H-pyrazol-1-yl]benzene-1-, compound with dicyclohexylamine (1:2))

SECTION 14 deleted: not classified as "Dangerous Goods"

SECTION 14 been added: Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3, compound with dicyclohexylamine(1:2)

SECTION 14 deleted: not classified as "Dangerous Goods"

SECTION 14 been added: Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3, compound with dicyclohexylamine(1:2)

SECTION 14 deleted: not classified as "Dangerous Goods"

SECTION 14 been added: Environmentally hazardous substance, liquid, n.o.s. ((Z)-N-methyl-N-(1-oxo-9-octadecenyl)glycine;Trihydrogen bis[4-[4,5-dihydro-4-[(2-hydroxy-5-nitrophenyl)azo]-3, compound with dicyclohexylamine(1:2)

SECTION 14 deleted: no dangerous goods

SECTION 15 been added: This product does not contain any ingredients regulated under this list.

SECTION 15 been added: -

SECTION 15 deleted: not applicable

SECTION 15 been added: 2, conf. AwSV, 18.04.2017

SECTION 15 deleted: 2 (self-classification)