

**Material Safety Data Sheet according to the Regulat.  
 1907/2006/EC(Annex II)**

Revision date: 11.2008

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**1. Product details:**

<b>1.1 Recommended use:</b>	<b>Detergent TR 87 for printing inks</b>
<b>1.2 Identification of the manufacturer / supplier</b>	Customs-tariff-no. 3814 0090
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**2. Hazards possibilities**

**For man:**









See also chapt. 11 and 15. Preparation is classified as dangerous in accordance with EC directive 1999/45/EC. Product is easily inflammable. Evolution of endangerous explosive / easily inflammable steam/air mixture possible. Irritation of the eyes. Irritation of the skin. Harmful: may cause lung damage if swallowed. Vapour may cause tiredness and presyncope.

**For environment:**

See chapt. 12. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Potable water hazard possible.

**3. Composition / information on ingredients**

**Hazardous ingredients:**

EINECS-No.	Name	Symbol	Conc.-%
CAS-No.	R-phrases		
265-151-9	Naphtha (petroleum), treated with hydrogen light		
11-38-51-53-65-67	F	Xn  Xi  Xi  N 	25 - 30
200-661-7	propane-2-ol		
11-36-67	F  Xi 		30 – 40
203-686-1	propyl acetate		
11-36-66-67	F  Xi 		30 - 40

Meanings of R-phrases see under chapt. 16



#### 4. First aid measures

- After inhalation:** Take the person out of the danger zone. Add fresh air and consult a doctor depending on the symptoms. In case of unconsciousness lie down in lateral recumbent position and consult a doctor. In case of apnoea – artificial respiration necessary.
- After eye contact:** Remove contact lenses. Rinse with running water several minutes. If necessary, consult a doctor.
- After skin contact:** Wash off immediately with a lot of water and soap. Remove contaminated, soaked clothing immediately. Consult a doctor.
- After ingestion:** Rinse out mouth with plenty of water. Do not induce vomiting. Immediately consult a doctor. Danger of aspiration. If vomiting, keep the head low, for the stomach contents cannot attain the lungs. Immediate referral into a hospital.
- Special:** Funds for first aid necessary. Instructions for the doctor: gastrolavage only with endotracheal intubation. Subsequent observation for pneumonia and pulmonary oedema.

#### 5. Fire fighting measures

**Extinguishing agents:**

CO<sub>2</sub>  
Dry powder  
Spray water jet  
For big sources of fire:  
Spray water jet  
Alcohol persisting foam  
Endangered container to be cooled with water

**Not to be used:**

Full water jet.

**Special exposure hazards arising from the substance or preparation itself, its combustion products or from resulting gases:**

**In the event of fire the following can be released:**

Carbon oxides  
Toxic pyrolysis products  
Evolution of explosive vapour /air mixture  
Dangerous vapour, heavier than air.  
Through distribution near the ground, a re-ignition to distant ignition sources is possible.

**Special protective equipment for firefighting:**

Do not inhale explosion and/or combustion gases.  
Use self-contained breathing apparatus.  
According to fire size full protection where necessary.

**Other information (chapt. 5):**

Contaminated extinguishing water should be disposed off acc. to regulatory instructions.

#### 6. Accidental release measures

**Personal precautions:**

Remove ignition sources, no smoking.  
Provide for fresh air supply.  
Avoid eye and skin contact as well as inhalation.  
Keep slip hazard in mind where necessary.



### Environmental precautions:

If leakage of bigger quantity arises: dam back  
Do not discharge into the drains/surface waters/groundwater.  
Avoid discharge in channelisation, cellars, workings potholes or other places, where accumulation could be dangerous.  
When accidental discharge into channelisation has happened, inform the corresponding officials. Danger of explosion.

### Methods for cleaning up/taking up:

Arrange for sufficient air supply.  
Take up with absorbent material (e.g. universal binder, sand, kieselguhr) and dispose acc. to chapt. 13.

## 7. Handling and storage

### Advice on safe handling:

Avoid inhalation of vapour.  
Arrange for sufficient air supply.  
Eventually suction measures at working place or at the machinery necessary.  
Keep away ignition sources – no smoking.  
Perhaps take measures against electrostatically supercharging.  
Use of explosion-protected equipment.  
Avoid eye and skin contact.  
At work do not eat, drink, smoke as well as storage of foodstuffs.  
Take notice of hints onto the label as well as manual.  
Working procedures acc. to operating instructions only.

### At decant works:

Earth devices.

### Storage

#### Requirements for storage rooms and vessels:

Do not store product in gateways and stairways.  
Storage of product only in original package and closed.  
Do not store together with inflammable or spontaneously ignitable products.  
Solvent resistant flooring

#### Special storage conditions:

See chapt. 10  
Store in a cool and well-ventilated place.  
Protect from heat and direct sunlight.  
Take notice of special storage conditions (in Germany e.g. acc. to Ordinance on Industrial Safety and Health).

## 8. Exposure controls / personal protection

Chem. description	Naphtha (petroleum), treated with hydrogen light	%Conc:25-30
AGW: 1200 mg/m <sup>3</sup>	Spb.-Üf.: 2(II)	----
BGW: ---		Other data: AGS
Chem. description	propan-2-ol	% Conc:30-40
AGW: 200 ppm (500 mg/m <sup>3</sup> )	Spb.-Üf.: 2(II)	----
BGW: 50 mg/l (Aceton, Vollblut, Urin, b)		Other data: DFG, Y
Chem. description	prophyl acetate	% Conc: 30-40
AGW: ** 100 ppm (420 mg/m <sup>3</sup> )	Spb.-Üf.: ** =1=	----
BGW: ---		Other data: ** DFG

AGW = occupational exposure limit values. E = respirable fraction, A = alveolar fraction. | Spb.-Üf. = top limiting – exceedance factor (1 til 8) and category (I, II) for short term value. "= =" = actual value. Category (I) = substances which have a specifying limit at the local



effect or are airway sensitising, (H) = resorptive active substances. | BGW = biological limit. Sampling moment: a) no restriction, b) end of exposition, resp., c) for long-term exposition: after several previous shifts, d) before following shift, e) after end of exposition: ...hours. | Other specifications: ARW = Provisional occupational exposure limit, H = skin resorptive. Y = a risk of foetal damage is ceased to fear if AGW and BGW will be complied to. Z = a risk of foetal damage can not be eliminated even when AGW and BGW will be complied to (s. No 2.7 TRGS 900). DFG = German Research Foundation (MAK-commission). AGS = committee for hazardous substances

\*\* = limit value for this substance was lifted through TRGS 900 (Germany) dated January 2006 with the target of re-work.

## Exposure controls

### Exposure controls at working place

Arrange for sufficient air supply. This can be achieved by local suction or general exhaust air. If this is not sufficient to keep the concentration below the limit for the working place (AGW), an appropriate breathing protection has to be used. Only valid if herein are listed up exposition limits. The general hygienic measures in dealing with chemicals has to be applied. Wash hands before breaks and after work. Keep away of foodstuffs, beverages and feedstuff.

**Respiratory protection:** if limit value of working place (AGW, Germany) is exceeded resp. MAK (Switzerland, Austria). Filter A2 P2 (EN 14387), follow the wear time limits for breathing apparatus.

**Hand protection:** Impermeable safety gloves (EN 374). If necessary safety gloves made of nitrile (EN 374) or viton (EN 374). Protective hand cream recommendable.

**Eye protection:** safety glasses with side protection shield (EN 166).

**Body protection:** occupational protection clothing (e.g. safety shoes EN 344, long-sleeved work clothing)

Additional information to hand protection – it has not been done any tests. The selection for preparations has been chosen to the best of one's knowledge and by use of the ingredients information. The selection has been made after data of the gloves manufacturer. The final choose must be made by taking care of the breakthrough times, permeation ratio and the degradation. Selection of appropriate gloves depends not only of the material, but also of further quality attributes and differs from producer to producer. When using preparations, the persistence of glove material is not calculable and has to be checked before use. The exact breakthrough time of the glove material can be obtained directly at the producer and has to be complied.

### Environmental exposure controls:

k.D.v.

## 9. Physical and chemical properties

**Form:** liquid  
**Colour:** transparent  
**Odour:** solvent typical

	<b>Value</b>	<b>Unit</b>	<b>Method</b>
<b>Flash point</b>	3-5	°C	
<b>Viscosity:</b> at 40 °C	< 7	mm <sup>2</sup> /s	
<b>Self ignitable:</b>	no		
<b>Inflammable characteristic:</b>	no		
<b>Lower Ex-limit:</b>	n. b.	Vol. %	
<b>Upper Ex-limit:</b>	n. b.	Vol. %	
<b>Solubility in water:</b>	partly		



	Value	Unit	Method
Boiling point:	60-98	°C	
Melting point/melting range:	<-20		
Product is not explosive. Formation of explosive/highly inflammable vapour/air mixtures possible.			
pH-value	at 20 °C	n. a.	
Vapour pressure:	at 20 °C	n. b.	hPa
Vapour density (Air = 1):		vapours, heavier than air.	
Density:	at 20 °C	0,779	g/cm3

## 10. Stability and reactivity

### Conditions to avoid

see chapt. 7.

If stored and handled proper not expected (stable).

Heat build-up, open flames, ignition sources

Electrostatically supercharging

### Materials to avoid

Contact with strong oxidising agents.

### Hazardous decomposition products

No hazardous reactions when stored and handled acc. to prescribed instructions.

## 11. Toxicological information

### Acute toxicity as well as immediate upcoming effects

Swallowing, LD50 rat oral (mg/kg): see chapt.15.

Inhaling, LC50 rat inhalative (mg/l/4h): k.D.v.

Skin contact, LD50 rat dermal (mg/kg): see chapt.15.

Eye contact: see chapt.15.

### Delayed upcoming as well as chronic effects

Sensitising effect: no hints for such an effect.

Carcinogenic effect: k.D.v.

Mutagenic effect: k.D.v.

Reproductive effect: k.D.v.

Narcotising effect: possible

### General remarks

Product has not been proved.

Classification according to method of calculation.

#### It may appear:

Irritation of the eyes

Irritation of the respiratory system

Cough

Headaches

Vertigo

Influence / damage of the central nervous system

Co-ordination disorders

Unconsciousness

#### At longer contact:

Product has a degreasing effect.

Desiccation of the skin

Dermatitis (skin inflammation)

#### If swallowing:

Sickness / Vomiting / Aspiration danger / Pulmonary oedema



## 12. Ecological information

The product has not been checked.  
Water hazard class (Germany): 1  
Self-assessment: yes (VwVwS)  
Persistence and degradability:  
Easy biologically degradable \*  
Photochemical degradation in the atmosphere.\*  
> 99,9% OECD 303A, (95%/21d mod. OECD-screening-test) \*\*  
Behaviour in sewage treatment facility: acc. to formulation no AOX contained.  
Aquatic Toxicity: see chapt. 2.  
Ecotoxicity: k.D.v.  
Mobility: k.D.v.  
Accumulation:  
Enrichment in organism possible. \*  
\* Naphtha (petroleum), treated with hydrogen light  
\*\* propane-2-ol

## 13. Disposal considerations

### Product / preparation / residual amount

#### Waste code-No. EC:

The listed waste code numbers, according to the European Waste Catalogue (EWC), are to be understood as a recommendation, because of the presumable usage of the product. As a cause of the special usage and the fact of waste disposal at the user, one perhaps may refer other waste code numbers, too. (2001/118/EG, 2001/119/EG, 2001/573/EG)

07 01 04 other organic solvents, cleaning agents and mother liquor  
14 06 03 other solvents and solvent mixtures

#### Recommendation:

Attend regional waste disposal regulations  
Hazardous waste disposal  
e. g. applicable incineration site.

#### Uncleaned packaging

See chapt. 13.1  
Attend regional waste disposal regulations.  
Emptying container completely.  
Not contaminated containers can be re-used.  
Not cleanable containers have to be disposed as the product itself.  
Uncleaned container are not to be perforated, cut or welded.  
Residuums can present a danger of explosion.  
15 01 10 container, which contain residuums of dangerous substances or are contaminated by dangerous substances.

## 14. Transport information

### General information

UN number: 1993  
Land transport (GGVSE/ADR/RID)  
Class/Packing group: 3/II  
Technical name: UN 1993 INFLAMMABLE LIQUID SUBSTANCE,  
N.O.S. (NAPHTHA (PETROLEUM),ISOPROPRANOL)  
(SPECIAL INSTRUCTION 640D)  
Classification code: F1  
LQ: 6

**Marine transport (IMDG/GGVSee)**

Class: 3  
PG: II  
EmS: F-E, S-E  
Marine Pollutant: n.a.  
Correct technical name: FLAMMABLE LIQUID, N.O.S (NAPHTHA (PETROLEUM), ISOPROPYL ALCOHOL)




**Air transport ICAO/IATA**

Class: 3  
PG: II  
Correct technical name: Flammable liquid, n.o.s (NAPHTHA (PETROLEUM), ISOPROPYL ALCOHOL)

**Other information:**

Number of danger as well as package coding as per request.

**15. Regulatory information****Labelling in accordance with hazardous material-V incl. EC guidelines (67/548/EWG and 1999/45/EG)**

F		inflammable
Xn		hazardous to health
N		dangerous for the environment

**R-phrases:**

11 Highly flammable  
36/38 Irritating to eyes and to skin  
51/53 toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment  
65 Harmful: may cause lung damage if swallowed  
67 Vapours may cause drowsiness and dizziness.

**S-phrases:**

9 Keep container in a well-ventilated place.  
16 Keep away from sources of ignition - No smoking.  
23.b Do not breath vapour.  
24/25 Avoid contact with skin and eyes.  
29/35 Do not empty into drains. This material and its container must be disposed of in a safe way.  
33 Take precautionary measures against static discharges.  
61 Avoid release to the environment. Refer to special instructions / Safety data sheets.  
62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**Special provisions concerning the labelling of preparations:**

Naphtha (petroleum), treated with hydrogen light  
Attend restrictive measures: Yes  
Observe employment restrictions for young people (German regulation).  
Observe employment restrictions for child bearing mothers (German regulation).  
Attend restriction guidelines 76/769/EWG, 1999/51/EG, 1999/77/EG  
VOC (1999/13/EC): 100% w/w



## 16. Other information

These information refer to the product in as-delivered condition.

Storage class (VCI): 3 A

Re-worked items: n.a.

Following employer's liability insurance association / occupational health regulation.

Following phrases represent the complete R-phrases of the ingredients  
(as named in chapt. 3).

11 Highly flammable

38 Irritating to skin.

51 Toxic to aquatic organisms.

53 May cause long-term adverse effects in the aquatic environment.

65 Harmful: may cause lung damage if swallowed.

67 Vapours may cause drowsiness and dizziness.

36 Irritating to eyes.

66 Repeated exposure may cause skin dryness or cracking.

### Legend:

n.a. = not applicable / n. b. = not determined / n.v. = not disposable / n.g. = not proved / k.D.v.  
= no data available

AGW = occupational exposure limit values / BGW = biological limit

VbF = regulation about flammable liquids (Austrian regulation)

WGK = water hazard class acc. to administrative regulation for agents hazardous to waters -  
VwVwS (German regulation)

WGK3 = severe hazard to waters, WGK2 = hazard to waters, WGK1 = low hazard to waters

VOC = Volatile organic compounds (flüchtige organische Verbindungen)

AOX = absorbable organic halogen connections

The data mentioned in the present safety data sheet correspond to our latest knowledge and  
experience and may be used to precise safety requirements for the different products. The  
information given therein is no warranty as to quality.