

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 1 of 7

**1. Identification****Product identifier**

die:master spacer varnish

**Further trade names**

1956 0100 die:master gray  
1956 0200 die:master red  
1956 0300 die:master blue  
1956 0400 die:master silver  
1956 0500 die:master gold  
1956 0800 die:master Set red  
1956 0900 die:master Set blue  
1956 1000 die:master Set gold/silver

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

Lacquer

**Uses advised against**

No information available.

**Details of the supplier of the safety data sheet****Manufacturer**

Company name: Renfert GmbH  
Street: Untere Giesswiesen 2  
Place: D-78247 Hilzingen  
Telephone: +49 7731 8208-0  
e-mail: info@renfert.com  
Contact person: Frau Andris  
e-mail: silke.andris@renfert.com  
Internet: www.renfert.com

Telefax: +49 7731 8208-70

Telephone: +49 7731 8208-927

**Supplier**

Company name: Renfert USA  
Street: 3718 Illinois Avenue  
Place: USA-60174 St. Charles IL  
Telephone: (001) 800336-7422  
e-mail: Bob@RenfertUSA.com  
Contact person: Bob Hurl  
e-mail: Bob@RenfertUSA.com  
Internet: www.renfert.com

Telephone: +1 (630) 5497380

**Emergency phone number:**

USA: 800-222-1222 (National Poison Control number) | CA: British Columbia:  
800-567-8911 or 604-682-5050 Alberta: 1-800-332-1414 or 944-1414 Saskatchewan:  
1-866-454-1212 Manitoba: 1-855-776-4766 Ontario: 1-800-268-9017 Quebec:  
1-800-463-5060 New Brunswick: 911 New Foundland: 1-866-727-1110 Northwest  
Territories: 1-800-332-1414 Nova Scotia: 1-800-565-8161

**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 2  
Serious eye damage/eye irritation: Eye Irrit. 2A  
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)  
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

**Label elements****29 CFR Part 1910.1200**

Signal word:

Danger

Pictograms:

**Hazard statements**

Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause respiratory irritation

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 2 of 7

May cause drowsiness or dizziness

**Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Avoid breathing dust/fume/gas/mist/vapors/spray.  
Wear protective gloves/protective clothing/eye protection/face protection.  
If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.

**Hazards not otherwise classified**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**3. Composition/information on ingredients****Mixtures****Chemical characterization**

Lacquer

**Hazardous components**

CAS No	Components	Quantity
78-93-3	butanone	20 - 55 %
96-22-0	pentan-3-one	5 - 35 %
123-86-4	n-butyl acetate	5 - 20 %

**4. First-aid measures****Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.

**After inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**After contact with skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

**After contact with eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**After ingestion**

Rinse mouth immediately and drink plenty of water. When in doubt or if symptoms are observed, get medical advice.

**Most important symptoms and effects, both acute and delayed**

The following symptoms may occur: Vapors may cause drowsiness and dizziness. Process vapors can irritate airways, skin and eyes. Repeated exposure may cause skin dryness or cracking.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), alcohol resistant foam, Water spray jet**Unsuitable extinguishing media**

Full water jet

**Specific hazards arising from the chemical**

Vapors may form explosive mixtures with air.  
Thermal decomposition can lead to the escape of irritating gases and vapors.

**Special protective equipment and precautions for fire-fighters**

In case of fire and/or explosion do not breathe fumes.  
In case of fire: Wear self-contained breathing apparatus.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.  
Use personal protection equipment.  
Remove all sources of ignition.

**Environmental precautions**

Do not allow to enter into surface water or drains.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 3 of 7

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Collect in closed and suitable containers for disposal.

**Reference to other sections**

Safe handling: see section 7  
Personal protection equipment (PPE): see section 8  
Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

Use only in well-ventilated areas.  
Avoid contact with eyes and skin.  
When using do not eat, drink or smoke.

**Advice on protection against fire and explosion**

Vapors may form explosive mixtures with air.  
Keep away from sources of ignition - No smoking.  
Take precautionary measures against static discharges.

**Further information on handling**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.

**8. Exposure controls/personal protection****Control parameters****Exposure limits**

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
78-93-3	2-Butanone (Methyl ethyl ketone)	200	590		TWA (8 h)	PEL
78-93-3	2-Butanone	200	590		TWA (8 h)	REL
		300	885		STEL (15 min)	REL
96-22-0	Diethyl ketone	200	705		TWA (8 h)	REL
123-86-4	n-Butyl acetate	150	710		TWA (8 h)	REL
		200	950		STEL (15 min)	REL
123-86-4	n-Butyl-acetate	150	710		TWA (8 h)	PEL

**Exposure controls****Appropriate engineering controls**

Safe handling: see section 7

**Protective and hygiene measures**

Do not breathe vapor.  
Avoid contact with skin, eyes and clothes.  
Wash hands before breaks and after work.  
Keep away from food, drink and animal feedingstuffs.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Thickness of the glove material: 0,5 mm

Breakthrough time: >= 60 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Respiratory protection**

Use only in well-ventilated areas.  
Usually no personal respirative protection necessary.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 4 of 7

**Environmental exposure controls**

Do not allow to enter into surface water or drains.

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state:	Liquid
Color:	various, depending on coloration
Odor:	characteristic

**Test method**

pH-Value:	not applicable
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**Changes in the physical state**

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	79 °C
Flash point:	< 0 °C DIN 51755 (cc)

**Explosive properties**

Vapors may form explosive mixtures with air.

Lower explosion limits:	1,2 vol. %
Upper explosion limits:	11,5 vol. %
Ignition temperature:	370 °C
Decomposition temperature:	not determined
Vapor pressure: (at 20 °C)	105 hPa
Density (at 20 °C):	0,8 - 1,0 g/cm <sup>3</sup>
Water solubility:	Immiscible
Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Evaporation rate:	not determined

**Other information**

No data available

**10. Stability and reactivity****Reactivity**

Vapors may form explosive mixtures with air.

**Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

**Possibility of hazardous reactions**

Vapors may form explosive mixtures with air.

**Conditions to avoid**

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

**Incompatible materials**

No information available.

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

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

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 5 of 7

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
78-93-3	butanone				
	oral	LD50 mg/kg	>2193	Rat	OECD 423
	dermal	LD50 mg/kg	> 5000	Rabbit	OECD 402
	inhalative (4 h) vapour	LC50	34 mg/l	Rat	
96-22-0	pentan-3-one				
	oral	LD50 mg/kg	2900	Rat	OECD 401
	dermal	LD50 mg/kg	16200	Rabbit	OECD 402
123-86-4	n-butyl acetate				
	oral	LD50 mg/kg	> 10000	Rat	OECD 423 (calculated. )
	dermal	LD50 mg/kg	> 10000	Rabbit	OECD 402

## Irritation and corrosivity

Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

## Sensitizing effects

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

## Carcinogenic/mutagenic/toxic effects for reproduction

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

## Specific target organ toxicity (STOT) - single exposure

May cause respiratory irritation (pentan-3-one)

May cause drowsiness or dizziness (butanone; pentan-3-one)

## Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

## Aspiration hazard

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

## Further information

The product has not been tested. The statement is derived from the properties of the single components.

## 12. Ecological information

### Ecotoxicity

There are no data available on the mixture itself.

### Persistence and degradability

There are no data available on the mixture itself.

### Bioaccumulative potential

No indication of bioaccumulation potential.

### Mobility in soil

There are no data available on the mixture itself.

### Other adverse effects

No information available.

## Further information

The product has not been tested. The statement is derived from the properties of the single components. Do not allow uncontrolled discharge of product into the environment.

## 13. Disposal considerations

### Waste treatment methods

#### Advice on disposal

Dispose of waste according to applicable legislation.

## 14. Transport information

US DOT 49 CFR 172.101

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 6 of 7

**UN/ID number:** UN 1263  
**Proper shipping name:** Paint  
**Transport hazard class(es):** 3  
**Packing group:** II  
 Hazard label: 3

## Marine transport (IMDG)

**UN number:** UN 1263  
**UN proper shipping name:** PAINT  
**Transport hazard class(es):** 3  
**Packing group:** II  
 Marine pollutant: no

## Air transport (ICAO-TI/IATA-DGR)

**UN number:** UN 1263  
**UN proper shipping name:** PAINT  
**Transport hazard class(es):** 3  
**Packing group:** II

## Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

## Special precautions for user

Further information: see section 6, 7, 8

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

not applicable

# 15. Regulatory information

## U.S. Regulations

### National regulatory information

SARA Section 304 CERCLA:

Methyl ethyl ketone (78-93-3): Reportable quantity = 5,000 (2270) lbs. (kg)

Butyl acetate (123-86-4): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Methyl ethyl ketone (78-93-3): Fire hazard, Immediate (acute) health hazard

pentan-3-one (96-22-0): Fire hazard, Immediate (acute) health hazard

Butyl acetate (123-86-4): Fire hazard, Immediate (acute) health hazard

Clean Air Act Section 112(b):

Methyl ethyl ketone (78-93-3)

## State Regulations

### Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

# 16. Other information

## Hazardous Materials Information Label (HMIS)

Health: 2

Flammability: 3

Physical Hazard: 1

Personal Protection: B

Revision date: 22.05.2018

Revision No: 1,1

## Changes

Abs. 4, 8, 14, 16 \* Data changed compared with the previous version

## Abbreviations and acronyms

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LD50: lethal dose, 50%

LC50: lethal concentration, 50%

EC50: half maximal effective concentration

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master spacer varnish**

Revision date: 22.05.2018

Product code: 19560x00\_USA

Page 7 of 7

RID: Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. Restricted to professional users.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

**die:master duo 1956 0600**

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 1 of 6

## 1. Identification

### Product identifier

die:master duo 1956 0600

### Further trade names

1956 0800 die:master Set red  
 1956 0900 die:master Set blue  
 1956 1000 die:master Set gold/silver  
 1957 1000 die:master Set ivory  
 1957 2000 die:master Set aqua

### Recommended use of the chemical and restrictions on use

#### Use of the substance/mixture

Lacquer

#### Uses advised against

No information available.

### Details of the supplier of the safety data sheet

#### Manufacturer

Company name: Renfert GmbH  
 Street: Untere Giesswiesen 2  
 Place: D-78247 Hilzingen  
 Telephone: +49 7731 8208-0  
 e-mail: info@renfert.com  
 Contact person: Frau Andris  
 e-mail: silke.andris@renfert.com  
 Internet: www.renfert.com

Telefax: +49 7731 8208-70

Telephone: +49 7731 8208-927

#### Supplier

Company name: Renfert USA  
 Street: 3718 Illinois Avenue  
 Place: USA-60174 St. Charles IL  
 Telephone: (001) 800336-7422  
 e-mail: Bob@RenfertUSA.com  
 Contact person: Bob Hurl  
 e-mail: Bob@RenfertUSA.com  
 Internet: www.renfert.com

Telephone: +1 (630) 5497380

### Emergency phone number:

USA: 800-222-1222 (National Poison Control number) | CA: British Columbia:  
 800-567-8911 or 604-682-5050 Alberta: 1-800-332-1414 or 944-1414 Saskatchewan:  
 1-866-454-1212 Manitoba: 1-855-776-4766 Ontario: 1-800-268-9017 Quebec:  
 1-800-463-5060 New Brunswick: 911 Newfoundland: 1-866-727-1110 Northwest  
 Territories: 1-800-332-1414 Nova Scotia: 1-800-565-8161

## 2. Hazard(s) identification

### Classification of the chemical

#### 29 CFR Part 1910.1200

Flammable liquids: Flam. Liq. 2  
 Serious eye damage/eye irritation: Eye Irrit. 2A  
 Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

### Label elements

#### 29 CFR Part 1910.1200

#### Signal word:

Danger

#### Pictograms:



#### Hazard statements

Highly flammable liquid and vapor  
 Causes serious eye irritation  
 May cause drowsiness or dizziness

#### Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
 Avoid breathing dust/fume/gas/mist/vapors/spray.  
 Wear protective gloves/protective clothing/eye protection/face protection.



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master duo****1956 0600**

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 2 of 6

If eye irritation persists: Get medical advice/attention.  
Store in a well-ventilated place. Keep container tightly closed.

**Hazards not otherwise classified**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**3. Composition/information on ingredients****Mixtures****Chemical characterization**

Lacquer

**Hazardous components**

CAS No	Components	Quantity
78-93-3	butanone	< 80 %
123-86-4	n-butyl acetate	10 - 25 %

**4. First-aid measures****Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.

**After inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**After contact with skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

**After contact with eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. When in doubt or if symptoms are observed, get medical advice.

**Most important symptoms and effects, both acute and delayed**

The following symptoms may occur: Vapors may cause drowsiness and dizziness. Process vapors can irritate airways, skin and eyes. Repeated exposure may cause skin dryness or cracking.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), alcohol resistant foam, Water spray jet

**Unsuitable extinguishing media**

Full water jet

**Specific hazards arising from the chemical**

Vapors may form explosive mixtures with air.

Thermal decomposition can lead to the escape of irritating gases and vapors.

**Special protective equipment and precautions for fire-fighters**

In case of fire and/or explosion do not breathe fumes.

In case of fire: Wear self-contained breathing apparatus.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.

Use personal protection equipment.

Remove all sources of ignition.

**Environmental precautions**

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

die:master duo 1956 0600

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 3 of 6

Disposal: see section 13

## 7. Handling and storage

### Precautions for safe handling

#### Advice on safe handling

- Use only in well-ventilated areas.
- Avoid contact with eyes and skin.
- When using do not eat, drink or smoke.

#### Advice on protection against fire and explosion

- Vapors may form explosive mixtures with air.
- Keep away from sources of ignition - No smoking.
- Take precautionary measures against static discharges.

#### Further information on handling

- If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

### Conditions for safe storage, including any incompatibilities

#### Requirements for storage rooms and vessels

- Keep container tightly closed in a cool, well-ventilated place.

## 8. Exposure controls/personal protection

### Control parameters

#### Exposure limits

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
78-93-3	2-Butanone (Methyl ethyl ketone)	200	590		TWA (8 h)	PEL
78-93-3	2-Butanone	200	590		TWA (8 h)	REL
		300	885		STEL (15 min)	REL
123-86-4	n-Butyl acetate	150	710		TWA (8 h)	REL
		200	950		STEL (15 min)	REL
123-86-4	n-Butyl-acetate	150	710		TWA (8 h)	PEL

### Exposure controls

#### Appropriate engineering controls

- Safe handling: see section 7

#### Protective and hygiene measures

- Do not breathe vapor.
- Avoid contact with skin, eyes and clothes.
- Wash hands before breaks and after work.
- Keep away from food, drink and animal feedingstuffs.

#### Eye/face protection

- Wear eye/face protection.

#### Hand protection

- When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.
- Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)
- Thickness of the glove material: 0,5 mm
- Breakthrough time: >= 60 min
- For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
- The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

#### Respiratory protection

- Use only in well-ventilated areas.
- Usually no personal respirative protection necessary.

#### Environmental exposure controls

- Do not allow to enter into surface water or drains.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

- Physical state: Liquid
- Color: colorless

# Safety Data Sheet

according to 29 CFR 1910.1200(g)

**die:master duo 1956 0600**

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 4 of 6

Odor: characteristic

## Test method

pH-Value: not applicable

### Changes in the physical state

Melting point/freezing point: not determined

Initial boiling point and boiling range: 79 °C

Flash point: - 5 °C DIN 51755 (cc)

### Explosive properties

Vapors may form explosive mixtures with air.

Lower explosion limits: 1,2 vol. %

Upper explosion limits: 11,5 vol. %

Ignition temperature: 370 °C

Vapor pressure: not determined

Density (at 20 °C): 0,78 - 0,88 g/cm³

Water solubility: Immiscible

Partition coefficient: not determined

Viscosity / dynamic: not determined

Viscosity / kinematic: not determined

Evaporation rate: not determined

### Other information

No data available

## 10. Stability and reactivity

### Reactivity

Vapors may form explosive mixtures with air.

### Chemical stability

The mixture is chemically stable under recommended conditions of storage, use and temperature.

### Possibility of hazardous reactions

In case of insufficient ventilation and/or through use, explosive/highly flammable mixtures may develop.

### Conditions to avoid

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

### Incompatible materials

No special measures are necessary.

### Hazardous decomposition products

No known hazardous decomposition products.

## 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

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

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
78-93-3	butanone				
	oral	LD50 mg/kg	>2193	Rat	OECD 423
	dermal	LD50 mg/kg	> 5000	Rabbit	OECD 402
	inhalative (4 h) vapour	LC50	34 mg/l	Rat	
123-86-4	n-butyl acetate				
	oral	LD50 mg/kg	> 10000	Rat	OECD 423 (calculated. )
	dermal	LD50 mg/kg	> 10000	Rabbit	OECD 402

#### Irritation and corrosivity

Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master duo****1956 0600**

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 5 of 6

**Sensitizing effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**Specific target organ toxicity (STOT) - single exposure**

May cause drowsiness or dizziness (butanone)

**Specific target organ toxicity (STOT) - repeated exposure**

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**

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

**Further information**

The product has not been tested. The statement is derived from the properties of the single components.

**12. Ecological information****Ecotoxicity**

There are no data available on the mixture itself.

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

No indication of bioaccumulation potential.

**Mobility in soil**

There are no data available on the mixture itself.

**Other adverse effects**

No information available.

**Further information**

Do not allow uncontrolled discharge of product into the environment.

The product has not been tested. The statement is derived from the properties of the single components.

**13. Disposal considerations****Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

**14. Transport information****US DOT 49 CFR 172.101****UN/ID number:** UN 1263**Proper shipping name:** Paint**Transport hazard class(es):** 3**Packing group:** II

Hazard label: 3

**Marine transport (IMDG)****UN number:** UN 1263**UN proper shipping name:** PAINT**Transport hazard class(es):** 3**Packing group:** II

Marine pollutant: no

**Air transport (ICAO-TI/IATA-DGR)****UN number:** UN 1263**UN proper shipping name:** PAINT**Transport hazard class(es):** 3**Packing group:** II**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**Special precautions for user**

Further information: see section 6, 7, 8

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master duo****1956 0600**

Revision date: 22.05.2018

Product code: 19560600\_USA

Page 6 of 6

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

not applicable

**15. Regulatory information****U.S. Regulations****National regulatory information**

SARA Section 304 CERCLA:

Methyl ethyl ketone (78-93-3): Reportable quantity = 5,000 (2270) lbs. (kg)

Butyl acetate (123-86-4): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Methyl ethyl ketone (78-93-3): Fire hazard, Immediate (acute) health hazard

Butyl acetate (123-86-4): Fire hazard, Immediate (acute) health hazard

Clean Air Act Section 112(b):

Methyl ethyl ketone (78-93-3)

**State Regulations****Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information****Hazardous Materials Information Label (HMIS)**

Health: 2

Flammability: 3

Physical Hazard: 1

Personal Protection: B

Revision date: 22.05.2018

Revision No: 1,1

**Changes**

Abs. 4, 8, 16 \* Data changed compared with the previous version

**Abbreviations and acronyms**

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LD50: lethal dose, 50%

LC50: lethal concentration, 50%

EC50: half maximal effective concentration

ADR: Accord européen relatif au transport international des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. Restricted to professional users.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 1 of 7

**1. Identification****Product identifier**

die:master thinner 1956 0700

**Further trade names**

1956 0800 die:master Set red  
1956 0900 die:master Set blue  
1956 1000 die:master Set gold/silver  
1957 1000 die:master Set ivory

**Recommended use of the chemical and restrictions on use****Use of the substance/mixture**

die:master thinner

**Uses advised against**

No information available.

**Details of the supplier of the safety data sheet****Manufacturer**

Company name: Renfert GmbH  
Street: Untere Giesswiesen 2  
Place: D-78247 Hilzingen  
Telephone: +49 7731 8208-0  
e-mail: info@renfert.com  
Contact person: Frau Andris  
e-mail: silke.andris@renfert.com  
Internet: www.renfert.com

Telefax: +49 7731 8208-70

Telephone: +49 7731 8208-927

**Supplier**

Company name: Renfert USA  
Street: 3718 Illinois Avenue  
Place: USA-60174 St. Charles IL  
Telephone: (001) 800336-7422  
e-mail: Bob@RenfertUSA.com  
Contact person: Bob Hurl  
e-mail: Bob@RenfertUSA.com  
Internet: www.renfert.com

Telephone: +1 (630) 5497380

**Emergency phone number:**

USA: 800-222-1222 (National Poison Control number) | CA: British Columbia:  
800-567-8911 or 604-682-5050 Alberta: 1-800-332-1414 or 944-1414 Saskatchewan:  
1-866-454-1212 Manitoba: 1-855-776-4766 Ontario: 1-800-268-9017 Quebec:  
1-800-463-5060 New Brunswick: 911 New Foundland: 1-866-727-1110 Northwest  
Territories: 1-800-332-1414 Nova Scotia: 1-800-565-8161

**2. Hazard(s) identification****Classification of the chemical****29 CFR Part 1910.1200**

Flammable liquids: Flam. Liq. 2  
Serious eye damage/eye irritation: Eye Irrit. 2A  
Specific target organ toxicity single exposure: STOT SE 3 (respiratory tract irritation)  
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)

**Label elements****29 CFR Part 1910.1200****Signal word:**

Danger

**Pictograms:****Hazard statements**

Highly flammable liquid and vapor  
Causes serious eye irritation  
May cause respiratory irritation  
May cause drowsiness or dizziness

**Precautionary statements**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Avoid breathing dust/fume/gas/mist/vapors/spray.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 2 of 7

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

If eye irritation persists: Get medical advice/attention.

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

**Hazards not otherwise classified**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**3. Composition/information on ingredients****Mixtures****Chemical characterization**

Solvents/Thinner

**Hazardous components**

CAS No	Components	Quantity
78-93-3	butanone	50 - 70 %
96-22-0	pentan-3-one	20 - 40 %
123-86-4	n-butyl acetate	5 - 15 %

**4. First-aid measures****Description of first aid measures****General information**

Remove contaminated, saturated clothing immediately.

**After inhalation**

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

**After contact with skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

**After contact with eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

**After ingestion**

Rinse mouth immediately and drink plenty of water. Do NOT induce vomiting. When in doubt or if symptoms are observed, get medical advice.

**Most important symptoms and effects, both acute and delayed**

The following symptoms may occur: Vapors may cause drowsiness and dizziness. Process vapors can irritate airways, skin and eyes. Repeated exposure may cause skin dryness or cracking.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**Extinguishing powder, Carbon dioxide (CO<sub>2</sub>), alcohol resistant foam, Water spray jet**Unsuitable extinguishing media**

Full water jet

**Specific hazards arising from the chemical**

Vapors may form explosive mixtures with air.

Thermal decomposition can lead to the escape of irritating gases and vapors.

**Special protective equipment and precautions for fire-fighters**

In case of fire and/or explosion do not breathe fumes.

In case of fire: Wear self-contained breathing apparatus.

**6. Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Provide adequate ventilation.

Use personal protection equipment.

Remove all sources of ignition.

**Environmental precautions**

Do not allow to enter into surface water or drains.

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

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Collect in closed and suitable containers for disposal.

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 3 of 7

**Reference to other sections**

Safe handling: see section 7

Personal protection equipment (PPE): see section 8

Disposal: see section 13

**7. Handling and storage****Precautions for safe handling****Advice on safe handling**

Use only in well-ventilated areas.

Avoid contact with eyes and skin.

When using do not eat, drink or smoke.

**Advice on protection against fire and explosion**

Vapors may form explosive mixtures with air.

Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharges.

**Further information on handling**

If handled uncovered, arrangements with local exhaust ventilation should be used if possible.

**Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Keep container tightly closed in a cool, well-ventilated place.

**8. Exposure controls/personal protection****Control parameters****Exposure limits**

CAS No.	Substance	ppm	mg/m <sup>3</sup>	f/cc	Category	Origin
78-93-3	2-Butanone (Methyl ethyl ketone)	200	590		TWA (8 h)	PEL
78-93-3	2-Butanone	200	590		TWA (8 h)	REL
		300	885		STEL (15 min)	REL
96-22-0	Diethyl ketone	200	705		TWA (8 h)	REL
123-86-4	n-Butyl acetate	150	710		TWA (8 h)	REL
		200	950		STEL (15 min)	REL
123-86-4	n-Butyl-acetate	150	710		TWA (8 h)	PEL

**Exposure controls****Appropriate engineering controls**

Safe handling: see section 7

**Protective and hygiene measures**

Do not breathe vapor.

Avoid contact with skin, eyes and clothes.

Wash hands before breaks and after work.

Keep away from food, drink and animal feedingstuffs.

**Eye/face protection**

Wear eye/face protection.

**Hand protection**

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits.

Suitable material: NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber)

Thickness of the glove material: 0,5 mm

Breakthrough time: &gt;= 60 min

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

**Respiratory protection**

Use only in well-ventilated areas.

Usually no personal respirative protection necessary.

**Environmental exposure controls**

Do not allow to enter into surface water or drains.



**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 4 of 7

**9. Physical and chemical properties****Information on basic physical and chemical properties**

Physical state: Liquid  
Color: colorless  
Odor: characteristic

**Test method**

pH-Value: not applicable

**Changes in the physical state**

Melting point/freezing point: not determined  
Initial boiling point and boiling range: 79 °C  
Flash point: - 1,5 °C DIN 51755 (cc)

**Explosive properties**

Vapors may form explosive mixtures with air.

Lower explosion limits: 1,2 vol. %  
Upper explosion limits: 11,5 vol. %  
Ignition temperature: 370 °C  
Vapor pressure: 105 hPa  
(at 20 °C)  
Density (at 20 °C): 0,7 - 0,9 g/cm<sup>3</sup>  
Water solubility: Immiscible  
Partition coefficient: not determined  
Viscosity / dynamic: not determined  
Viscosity / kinematic: not determined  
Evaporation rate: not determined  
Solvent content: 100%

**Other information**

Solid content: 0 %

**10. Stability and reactivity****Reactivity**

Vapors may form explosive mixtures with air.

**Chemical stability**

The mixture is chemically stable under recommended conditions of storage, use and temperature.

**Possibility of hazardous reactions**

Vapors may form explosive mixtures with air.

**Conditions to avoid**

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

**Incompatible materials**

No information available.

**Hazardous decomposition products**

No known hazardous decomposition products.

**11. Toxicological information****Information on toxicological effects****Acute toxicity**

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

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 5 of 7

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
78-93-3	butanone				
	oral	LD50 mg/kg	>2193	Rat	OECD 423
	dermal	LD50 mg/kg	> 5000	Rabbit	OECD 402
	inhalative (4 h) vapour	LC50	34 mg/l	Rat	
96-22-0	pentan-3-one				
	oral	LD50 mg/kg	2900	Rat	OECD 401
	dermal	LD50 mg/kg	16200	Rabbit	OECD 402
123-86-4	n-butyl acetate				
	oral	LD50 mg/kg	> 10000	Rat	OECD 423 (calculated. )
	dermal	LD50 mg/kg	> 10000	Rabbit	OECD 402

**Irritation and corrosivity**

Causes serious eye irritation

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

**Sensitizing effects**

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

**Carcinogenic/mutagenic/toxic effects for reproduction**

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

**Specific target organ toxicity (STOT) - single exposure**

May cause respiratory irritation (pentan-3-one)

May cause drowsiness or dizziness (butanone; pentan-3-one)

**Specific target organ toxicity (STOT) - repeated exposure**

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

Carcinogenicity (OSHA): No ingredient of this mixture is listed.

Carcinogenicity (IARC): No ingredient of this mixture is listed.

Carcinogenicity (NTP): No ingredient of this mixture is listed.

**Aspiration hazard**

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

**Further information**

The product has not been tested. The statement is derived from the properties of the single components.

**12. Ecological information****Ecotoxicity**

There are no data available on the mixture itself.

**Persistence and degradability**

There are no data available on the mixture itself.

**Bioaccumulative potential**

No indication of bioaccumulation potential.

**Mobility in soil**

There are no data available on the mixture itself.

**Other adverse effects**

No information available.

**Further information**

The product has not been tested. The statement is derived from the properties of the single components. Do not allow uncontrolled discharge of product into the environment.

**13. Disposal considerations****Waste treatment methods****Advice on disposal**

Dispose of waste according to applicable legislation.

**14. Transport information****US DOT 49 CFR 172.101**

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 6 of 7

**UN/ID number:** UN 1263  
**Proper shipping name:** Paint related material  
**Transport hazard class(es):** 3  
**Packing group:** II  
Hazard label: 3

**Marine transport (IMDG)**

**UN number:** UN 1263  
**UN proper shipping name:** PAINT RELATED MATERIAL  
**Transport hazard class(es):** 3  
**Packing group:** II  
Marine pollutant: no

**Air transport (ICAO-TI/IATA-DGR)**

**UN number:** UN 1263  
**UN proper shipping name:** PAINT RELATED MATERIAL  
**Transport hazard class(es):** 3  
**Packing group:** II

**Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: no

**Special precautions for user**

Further information: see section 6, 7, 8

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

not applicable

**15. Regulatory information****U.S. Regulations****National regulatory information**

SARA Section 304 CERCLA:

Methyl ethyl ketone (78-93-3): Reportable quantity = 5,000 (2270) lbs. (kg)

Butyl acetate (123-86-4): Reportable quantity = 5,000 (2270) lbs. (kg)

SARA Section 311/312 Hazards:

Methyl ethyl ketone (78-93-3): Fire hazard, Immediate (acute) health hazard

pentan-3-one (96-22-0): Fire hazard, Immediate (acute) health hazard

Butyl acetate (123-86-4): Fire hazard, Immediate (acute) health hazard

Clean Air Act Section 112(b):

Methyl ethyl ketone (78-93-3)

**State Regulations****Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)**

This product contains no chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

**16. Other information****Hazardous Materials Information Label (HMIS)**

Health: 2  
Flammability: 3  
Physical Hazard: 1  
Personal Protection: B

Revision date: 22.05.2018

Revision No: 1,1

**Changes**

Abs. 4, 8, 16 \* Data changed compared with the previous version

**Abbreviations and acronyms**

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LD50: lethal dose, 50%

LC50: lethal concentration, 50%

EC50: half maximal effective concentration

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**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

**die:master thinner****1956 0700**

Revision date: 22.05.2018

Product code: 19560700\_USA

Page 7 of 7

RID: Règlement concernant le transport international ferroviaire de marchandises Dangereuses (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

ICAO: International Civil Aviation Organization

MARPOL: International Convention for the Prevention of Marine Pollution from Ships

**Other data**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material. Restricted to professional users.

*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*