

**Safety Data Sheet**

according to 29 CFR 1910.1200(g)

Liquid Roc 200, Comp. A

Revision date: 26.09.2018

Product code: SDS38US

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Hazardous components

CAS No	Components	Quantity
2082-81-7	Tetramethylene dimethacrylate	20.0 %
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol	0.90 %
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol	0.80 %
98-29-3	p-tert-Butylcatechol	0.10 %

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

Take off immediately all contaminated clothing and wash it before reuse.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

Take off immediately all contaminated clothing and wash it before reuse.
Medical treatment necessary.

After contact with eyes

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth immediately and drink plenty of water.

Most important symptoms and effects, both acute and delayed

Allergic reactions

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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

Extinguishing powder
Water spray jet

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

Pyrolysis products, toxic
Carbon monoxide

Special protective equipment and precautions for fire-fighters

In case of fire and/or explosion do not breathe fumes.
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Provide adequate ventilation. Do not breathe gas/fume/vapour/spray. Avoid contact with skin, eyes and clothes.
Use personal protection equipment.

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Environmental precautions

Do not allow to enter into surface water or drains.

Methods and material for containment and cleaning up

Take up mechanically. Treat the recovered material as prescribed in the section on waste 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 outdoors or in a well-ventilated area.

When using do not eat, drink or smoke.

Wash hands before breaks and after work.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.

Keep only in the original container in a cool, well-ventilated place.

Advice on storage compatibility

Do not use for products which come into contact with the food stuffs.

Further information on storage conditions

Keep container tightly closed in a cool place.

storage temperature 5 - 25°C (41-77 F)

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
14808-60-7	Silica, crystalline (as respirable dust)	-	0.05		TWA (8 h)	REL
14808-60-7	Silica, crystalline - alpha-quartz (respirable fraction)		0.025		TWA (8 h)	ACGIH-2018
14808-60-7	Silica, crystalline quartz, respirable dust	(Z-3)	(Z-3)		TWA (8 h)	PEL
14808-60-7	Silica, crystalline quartz, total dust	-	(Z-3)		TWA (8 h)	PEL

Additional advice on limit values

A quartz contained is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded.

Exposure controls



Appropriate engineering controls

not applicable

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Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Wear eye protection/face protection.
Safety goggles with side shields are recommended.

Hand protection

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

Wearing time with occasional contact (splashes): 0,4mm NBR (Nitrile rubber) >480min (EN374)

Wearing time with permanent contact 0,5mm NBR (Nitrile rubber) >480min (EN374)

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Should a respirator be needed, follow OSHA regulation for respirator use (29 CFR 1910.134). Wear an air-purifying NIOSH-certified (or equivalent) respirator (with a high efficiency particulate filter) as needed.

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

Physical state:	Paste	
Color:	light beige	
pH-Value:		not determined

Changes in the physical state

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not applicable

Flammability

Solid:	not determined
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

Auto-ignition temperature

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapor pressure:	not determined
Density (at 20 °C):	1,77 g/cm ³
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

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Solubility in other solvents

not determined

Partition coefficient:

not determined

Vapor density:

not determined

Evaporation rate:

not determined

Other information

Solid content:

not determined

10. Stability and reactivity**Reactivity**

No hazardous reaction when handled and stored according to provisions.

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

No known hazardous reactions.

Conditions to avoid

none/none

Incompatible materials

No information available.

Hazardous decomposition products

No known hazardous decomposition products.

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

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Acute toxicity

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
2082-81-7	Tetramethylene dimethacrylate				
	oral	LD50 >5000 mg/kg	Rat		
	dermal	LD50 >3000 mg/kg	Rabbit		
27813-02-1	Methacrylic acid, monoester with propane-1,2-diol				
	oral	LD50 11200 mg/kg	Rat		
	dermal	LD50 > 5000 mg/kg	Rabbit		
38668-48-3	1,1'-(p-Tolylimino)dipropan-2-ol				
	oral	LD50 27,5 mg/kg	Rat		
	dermal	LD50 >2000 mg/kg			
98-29-3	p-tert-Butylcatechol				
	oral	LD50 815 mg/kg	Rat		
	dermal	LD50 1331 mg/kg	Rat		

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
Carcinogenicity (IARC): Silica dust, crystalline, in the form of quartz or cristobalite (CAS 14808-60-7) is listed in group 1.
Carcinogenicity (NTP): No ingredient of this mixture is listed.

Further information

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

12. Ecological information**Ecotoxicity**

The product is not: Ecotoxic.

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

Mobility in soil

The product has not been tested.

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

13. Disposal considerations**Waste treatment methods**

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Advice on disposal

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information**US DOT 49 CFR 172.101****Proper shipping name:**

Not a hazardous material with respect to these transport regulations.

Marine transport (IMDG)**UN number:**

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**UN number:**

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No information available.

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

not applicable

15. Regulatory information**U.S. Regulations****National Inventory TSCA**

All ingredients of this mixture are included on the TSCA Inventory.

National regulatory information

SARA Section 311/312 Hazards:

Tetramethylene dimethacrylate (2082-81-7): Immediate (acute) health hazard

Methacrylic acid, monoester with propane-1,2-diol (27813-02-1): Immediate (acute) health hazard

1,1'-(p-Tolylimino)dipropan-2-ol (38668-48-3): Immediate (acute) health hazard

p-tert-Butylcatechol (98-29-3): Immediate (acute) health hazard

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.

Additional information

A quartz (silica) contained is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded, thus the product does not cause a carcinogenic effect. Silica is listed in the Prop 65 list.

16. Other information

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Hazardous Materials Information Label (HMIS)

Health: 2
Physical Hazard: 1
Personal Protection: X

NFPA Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 1
Unique Hazard: -

**Changes**

Revision date: 26.09.2018

Revision No: 1,00,4

This data sheet contains changes from the previous version in section(s): 3,7,8,11,15,16.

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
EC50: Effective concentration, 50%
ErC50: EC50 in terms of reduction of growth rate
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)
IARC: International Agency for Research on Cancer
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NOEC: No Observed Effect Concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
SARA: Superfund Amendments and Reauthorization Act
TLV: Threshold Limit Values
TSCA: Toxic Substances Control Act

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.

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

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Description of first aid measures**General information**

Change contaminated, saturated clothing.

After inhalation

Provide fresh air. When in doubt or if symptoms are observed, get medical advice.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. Medical treatment necessary.

After contact with eyes

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

After ingestion

Rinse mouth immediately and drink plenty of water.

Most important symptoms and effects, both acute and delayed

Allergic reactions

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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

Co-ordinate fire-fighting measures to the fire surroundings.
Extinguishing powder
Water spray jet

Unsuitable extinguishing media

Full water jet

Specific hazards arising from the chemical

Pyrolysis products, toxic
Carbon monoxide

Special protective equipment and precautions for fire-fighters

In case of fire and/or explosion do not breathe fumes.
Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

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

Provide adequate ventilation.
Use personal protection equipment.
Special danger of slipping by leaking/spilling product.

Environmental precautions

Do not allow to enter into surface water or drains.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Methods and material for containment and cleaning up

Take up mechanically.
Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
Treat the recovered material as prescribed in the section on waste disposal.

Reference to other sections

Safe handling: see section 7

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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 outdoors or in a well-ventilated area.
When using do not eat, drink or smoke.
Use protective skin cream before handling the product.

Advice on protection against fire and explosion

No special fire protection measures are necessary.

Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Keep container tightly closed.
Keep/Store only in original container.

Advice on storage compatibility

Do not use for products which come into contact with the food stuffs.
Store in a well-ventilated place. Keep cool.

Further information on storage conditions

Keep container tightly closed in a cool place.
storage temperature 5 - 25°C (41-77 F)

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No.	Substance	ppm	mg/m ³	f/cc	Category	Origin
94-36-0	Benzoyl peroxide	-	5		TWA (8 h)	PEL
		-	5		TWA (8 h)	REL
			5		TWA (8 h)	ACGIH-2018

Exposure controls



Appropriate engineering controls

not applicable

Protective and hygiene measures

Remove contaminated, saturated clothing immediately. Draw up and observe skin protection programme.
Wash hands and face before breaks and after work and take a shower if necessary. When using do not eat or drink.

Eye/face protection

Suitable eye protection: Wear eye/face protection.
Safety goggles with side shields are recommended.

Hand protection

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

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recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Wearing time with occasional contact (splashes): 0,4mm NBR (Nitrile rubber) > 480min (EN 374)

Wearing time with permanent contact 0,5mm NBR (Nitrile rubber) > 480min (EN 374)

Skin protection

Wear suitable protective clothing.

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Should a respirator be needed, follow OSHA regulation for respirator use (29 CFR 1910.134). Wear an air-purifying NIOSH-certified (or equivalent) respirator (with a high efficiency particulate filter) as needed.

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

Physical state:	Paste
Color:	black
Odor:	characteristic
pH-Value:	not applicable

Changes in the physical state

Melting point/freezing point:	not determined
Initial boiling point and boiling range:	not determined
Flash point:	not applicable

Flammability

Solid:	not determined
Gas:	not applicable
Lower explosion limits:	not determined
Upper explosion limits:	not determined

Auto-ignition temperature

Solid:	not determined
Gas:	not applicable
Decomposition temperature:	not determined

Oxidizing properties

Not oxidising.

Vapor pressure:	not determined
Density:	1,77 g/cm ³
Water solubility:	The study does not need to be conducted because the substance is known to be insoluble in water.

Solubility in other solvents

not determined

Partition coefficient:	not determined
Vapor density:	not determined
Evaporation rate:	not determined

Other information

Solid content:	not determined
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10. Stability and reactivity**Reactivity**

see section 10.3

Chemical stability

The product is stable under storage at normal ambient temperatures.

Possibility of hazardous reactions

Violent reaction with: Oxidising agent

Conditions to avoid

see section 7.2

Incompatible materials

Oxidising agent, strong

Hazardous decomposition products

No known hazardous decomposition products.

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

CAS No	Components				
	Exposure route	Dose	Species	Source	Method
94-36-0	Dibenzoyl peroxide				
	oral	LD50 >5000 mg/kg	Rat		

Carcinogenicity (OSHA): No ingredient of this mixture is listed.
Carcinogenicity (IARC): Benzoyl peroxide (CAS 94-36-0) is listed in group 3.
Carcinogenicity (NTP): No ingredient of this mixture is listed.

12. Ecological information**Ecotoxicity**

The product is not: Ecotoxic.

OECD 201 (Desmodesmus subspicatus)

IC10: (0 - 72h) = 60 mg/l

IC50: (0 - 72h) = > 500 mg/l

OECD 202 (Daphnia magna (Big water flea)

EC0/NOEC (48h) = 100 mg/l

EC50 (48h) = > 500 mg/l

EC100 (48h) = >> 500 mg/l

OECD 203 (Brachydanio rerio (zebra-fish)

LC0/NOEC = 500 mg/l

LC50 = > 500 mg/l

LC100 = >>500 mg/l

Persistence and degradability

The product has not been tested.

Bioaccumulative potential

The product has not been tested.

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Mobility in soil

The product has not been tested.

Other adverse effects

No information available.

Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

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

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

14. Transport information**US DOT 49 CFR 172.101****Proper shipping name:**

Not a hazardous material with respect to these transport regulations.

Marine transport (IMDG)**UN number:**

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

No dangerous good in sense of this transport regulation.

Air transport (ICAO-TI/IATA-DGR)**UN number:**

No dangerous good in sense of this transport regulation.

UN proper shipping name:

No dangerous good in sense of this transport regulation.

Transport hazard class(es):

No dangerous good in sense of this transport regulation.

Packing group:

No dangerous good in sense of this transport regulation.

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

Special precautions for user

No information available.

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

not applicable

15. Regulatory information**U.S. Regulations****National Inventory TSCA**

All ingredients of this mixture are included on the TSCA Inventory.

National regulatory information

SARA Section 311/312 Hazards:

Benzoyl peroxide (94-36-0): Reactive, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Benzoyl peroxide (94-36-0): De minimis limit = 1.0 %, Reportable threshold = Standard

State Regulations

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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.

Additional information

A quartz (silica) contained is firmly bound in the pasty component, and thus not freely available during use, so that a risk of dust inhalation is excluded, thus the product does not cause a carcinogenic effect. Silica is listed in the Prop 65 list.

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

Health: 2
Physical Hazard: 1
Personal Protection: X

NFPA Hazard Ratings

Health: 2
Flammability: 1
Reactivity: 1
Unique Hazard: -

**Changes**

Revision date: 26.09.2018
Revision No: 1,00,5

This data sheet contains changes from the previous version in section(s): 2,3,7,8,11.

Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
EC50: Effective concentration, 50%
ErC50: EC50 in terms of reduction of growth rate
IATA: International Air Transport Association
IATA-DGR: Dangerous Goods Regulations (DRG) for the air transport (IATA)
IARC: International Agency for Research on Cancer
IMDG: International Maritime Code for Dangerous Goods
LC50: Lethal concentration, 50%
LD50: Lethal dose, 50%
NFPA: National Fire Protection Association
NIOSH: National Institute for Occupational Safety and Health
NOEC: No Observed Effect Concentration
NTP: National Toxicology Program
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
SARA: Superfund Amendments and Reauthorization Act
TLV: Threshold Limit Values
TSCA: Toxic Substances Control Act

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.



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