1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Trade name	:	ACETONE
Product name	:	propanone
CAS-No.	:	67-64-1

Details of the supplier of the safety data sheet

Company	:	Rhodia Poliamida e Especialidades Ltda Fazenda São Francisco, s/n CEP: 13140-000, Paulínia - SP Tel: (+55 19) 3874 8000
Emergency telephone number	:	MULTI LINGUAL EMERGENCY NUMBER (24/7) Europe/America/Africa : +44 1235 239 670 (UK) Middle East & Africa speaking Arabic : +44 1235 239 671 (UK) Asia Pacific : +65 3158 1074 (Singapore) China : +86 10 5100 3039 (Beijing) Mercosul : (+55 19) 3874 9333
E-mail address	:	information.fds@eu.rhodia.com

2. HAZARDS IDENTIFICATION

Classification

Classification (REGULATION (EC) No 1272/2008)

Flammable liquids, Category 2	H225: Highly flammable liquid and vapour.
Eye irritation, Category 2	H319: Causes serious eye irritation.
Specific target organ toxicity - single exposure, Category 3	H336: May cause drowsiness or dizziness.

Classification (67/548/EEC,1999/45/EC)

F: Highly flammable	R11: Highly flammable.
Xi: Irritant	R36: Irritating to eyes. R66: Repeated exposure may cause skin dryness or cracking. R67: Vapours may cause drowsiness and dizziness.

Label elements

Hazardous products which must be listed on the label:

- 606-001-00-8 acetone

REGULATION (EC) No 1272/2008

Pictogram :

Signal word : Danger

Hazard statements : H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements : **Prevention:**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage:
P403 + P235 Store in a well-ventilated place. Keep cool.

Additional Labeling: : EUH066 Repeated exposure may cause skin dryness or cracking.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : propanone

Substance

CAS-No. : 67-64-1

EINECS-No. : 200-662-2

Information on Components and Impurities

Chemical Name	Index-No. CAS-No.	Classification 67/548/EEC	Classification REGULATION (EC) No 1272/2008	Concentration [%]
acetone	606-001-00-8 67-64-1	F; R11 Xi; R36 R66 R67	H225 : Flammable liquids , Category 2 . H319 : Eye irritation , Category 2 . H336 : Specific target organ toxicity - single exposure , Category 3 .	>= 99 - <= 100

For the full text of the R-phrases mentioned in this Section, see Section 16.
For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

Description of necessary first-aid measures

General advice : Show this safety data sheet to the doctor in attendance.
First aider needs to protect himself.
Place affected clothing in a sealed bag for subsequent decontamination.

Inhalation : Move to fresh air in case of accidental inhalation of vapours or decomposition products.
If not breathing, give artificial respiration.
Consult a physician if necessary.

Skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with plenty of water for at least 15 minutes.
Consult a physician if necessary.

Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If eye irritation persists, consult a physician
In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Ingestion : Do NOT induce vomiting.
Rinse mouth with water.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media : Foam
Dry powder
Carbon dioxide (CO2)

Unsuitable extinguishing media	:	High volume water jet

Special hazards arising from the substance or mixture

Specific hazards during fire fighting	:	Volatile liquid. On heating there is a risk of bursting due to internal pressure build-up. Highly flammable liquids Vapour/air-mixtures are explosive at intense warming. Can cause combustion in contact with naked flames, strong heating.

Advice for firefighters

Special protective equipment for fire-fighters	:	Personal protective equipment comprising: suitable protective gloves, safety goggles and protective clothing Wear self contained breathing apparatus for fire fighting if necessary.
Specific fire fighting methods	:	Use appropriate means for fighting adjacent fires.
Further information	:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	:	Mark the contaminated area with signs and prevent access to unauthorized personnel. Avoid contact with the skin and the eyes. Keep away from flames and sparks. Store away from heat. Use personal protective equipment. Stop the leak. Turn leaking containers leak-side up to prevent the escape of liquid.
Environmental precautions	:	Dam up. Try to prevent the material from entering drains or water courses. Prevent product from entering drains.

Methods for Cleaning or Taking Up

Recovery	:	Collect spillage. Pick up and transfer to properly labelled containers. Flammable product. Take all necessary precautions. Earth the containers and the equipment. Keep in suitable, closed containers for disposal.
Neutralization	:	Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Decontamination/cleaning	:	Pick up contaminated soil. Clean contaminated floors and objects thoroughly while observing environmental regulations. Pick up and transfer to properly labelled containers. Keep in suitable, closed containers for disposal. Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).
Disposal	:	Dispose of contents/ container to an approved incineration plant. The product should not be allowed to enter drains, water courses or the soil. Dispose of in accordance with local regulations.

7. HANDLING AND STORAGE

Handling

Technical measures	:	Earth the equipment. Ground/bond container and receiving equipment. No smoking. Take measures to prevent the build up of electrostatic charge. Provide adequate ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Electrical installations / working materials must comply with the technological safety standards. No sparking tools should be used.
Advice on safe handling and usage	:	Provide adequate ventilation. Provide sufficient air exchange and/or exhaust in work rooms. Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid inhalation, ingestion and contact with skin and eyes.

Storage

Technical Measures for storage : Electrical installations / working materials must comply with the technological safety standards.
The floor of the depot should be impermeable and designed to form a water-tight basin.

Storage conditions

Recommended : Keep in a well-ventilated place.
Keep away from heat and sources of ignition.
Store contents under inert gas.
Keep under nitrogen.
Keep away from open flames, hot surfaces and sources of ignition.
Keep away from incompatible materials to be indicated by the manufacturer.

Packaging Measures

Packaging materials - Recommended : Steel, Iron, Store in original container.

Packaging materials - To be avoided : Plastic materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	Value type	Value	Update	Basis
acetone	TWA	500 ppm 1.210 mg/m3	2000-06-16	Europe. Commission Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values
	Indicative			

Personal protective equipment

Respiratory protection : Use a respirator with an approved filter if a risk assessment indicates this is necessary.

Hand protection : Where there is a risk of contact with hands, use appropriate gloves
Gloves must be inspected prior to use.

Eye protection : Tightly fitting safety goggles

Skin and body protection	:	Choose body protection according to the amount and concentration of the dangerous substance at the work place. Remove and wash contaminated clothing.
Hygiene measures	:	Ensure that eyewash stations and safety showers are close to the workstation location. Use clean, well-maintained personal protection equipment. Wash hands before breaks and at the end of workday. When using do not eat, drink or smoke.
Protective measures	:	Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and/or risks that may occur during use.
General advice	:	Dam up. Try to prevent the material from entering drains or water courses. Prevent product from entering drains.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form	:	transparent
Physical state	:	liquid
Colour	:	colourless
Odour	:	pleasant
Odour Threshold	:	no data available

Safety data

pH	:	not applicable
Crystallization temperature	:	-95,7 °C
Boiling point/boiling range	:	56,29 °C at 1.013,25 hPa
Flash point	:	-18 °C closed cup -9 °C open cup
Flammability (solid, gas)	:	no data available

Autoignition temperature	:	538 °C
Oxidizing properties	:	Non oxidizing material according to EC criteria
Water solubility	:	completely miscible
Solubility in other solvents	:	common organic solvents completely miscible
Partition coefficient: n-octanol/water	:	log Pow: -0,24 at 20 °C
Vapour pressure	:	267 hPa at 22,7 °C
Henry's Constant	:	1,894777 Pa.m3/mol at 25 °C
Evaporation rate	:	< 1
Relative vapour density	:	2
Density	:	0,79 g/cm3 at 20 °C
Relative density	:	0,7899
Oxidation/Reduction Potential	:	no data available
Viscosity, dynamic	:	0,33 mPa.s at 20 °C
Viscosity, kinematic	:	no data available
Surface tension	:	23,3 mN/m at 20 °C
Explosive properties	:	no data available
Thermal decomposition	:	no data available
Minimum ignition energy	:	1,15 mJ
Lower explosion limit	:	2,60 %(V)
Upper explosion limit	:	12,80 %(V)
Molecular Weight	:	58,08 g/mol

10. STABILITY AND REACTIVITY

Chemical stability	:	Stable under normal conditions. Stable at room temperature.
Hazardous reactions		

Materials to avoid	:	Reacts violently with: Peroxides Nitric acid Halogenated hydrocarbons Strong oxidizing agents
Decomposition products	:	Carbon dioxide (CO2) Carbon monoxide
Other information	:	Attacks : certain plastics, rubbers and coatings.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Acute oral toxicity	:	LD50 : 5.800 mg/kg - mouse LD50 : 5.340 mg/kg - rabbit
Acute inhalation toxicity	:	LC50 - 8 h : 50,1 mg/l - mouse Symptoms: Narcotic effects Components of the product may be absorbed into the body by inhalation. Irritating to respiratory system.
Acute dermal toxicity	:	LD50 : 20.000 mg/kg - rabbit Dermal absorption possible.
Acute toxicity (other routes of administration)	:	no data available
Aspiration toxicity	:	no data available

Skin corrosion/irritation

Skin irritation	:	Mild skin irritation

Serious eye damage/eye irritation

Eye irritation	:	Irritating to eyes. Irritating to mucous membranes

Respiratory or skin sensitization

Sensitisation	:	no data available

Repeated dose toxicity

Repeated dose toxicity	:	If inhaled Symptoms: Vertigo, Vomiting, Diarrhoea., Drowsiness Dermal Symptoms: Dermatitis

STOT

STOT - single exposure	:	Toxicology Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation., May cause drowsiness or dizziness.
STOT - repeated exposure	:	no data available

Carcinogenicity

Carcinogenicity	:	Not classifiable as a human carcinogen.

Mutagenicity

Genotoxicity in vitro	:	no data available
Genotoxicity in vivo	:	no data available

Reproductive toxicity

Reproductive toxicity	:	no data available

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic Compartment (including sediment)

Toxicity to fish	:	LC50 - 24 h : 8.750 mg/l - Danio rerio (zebra fish) Bibliography
Toxicity to daphnia and other aquatic invertebrates.	:	EC50 - 24 h : 6.400 mg/l - Daphnia magna (Water flea) Bibliography
Toxicity to microorganisms	:	EC50 - 16 h : 1.700 mg/l - Pseudomonas putida Bibliography

Ecotoxicity assessment

Ecotoxicity assessment	:	Does not have any known long-term adverse effects on the aquatic organisms tested

Persistence and degradability

Biodegradability

Biodegradability	:	Ultimate aerobic biodegradability Readily biodegradable. anaerobic Biodegradable

Bioaccumulation

Partition coefficient: n-octanol/water	:	Not potentially bioaccumulable

Mobility

Distribution among environmental compartments	:	Product readily filters into the soil The product evaporates readily.
Known distribution to environmental compartments	:	Ultimate destination of the product : Water Ultimate destination of the product : Air

13. DISPOSAL CONSIDERATIONS

Product Disposal

Advice on Disposal	:	Do not dispose of with domestic refuse. The product should not be allowed to enter drains, water courses or the soil. Dispose of in accordance with local regulations. Dispose of contents/ container to an approved incineration plant.

Advice on cleaning and disposal of packaging

Advice	:	Clean container with water. Do not re-use empty containers. Dispose of contents/ container to an approved incineration plant.
Other data	:	Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

ADR

UN number	: 1090
Dangerous Good Description	: UN 1090 ACETONE, 3, II, (D/E)
Labels	: 3
Packing group	: II
Tunnel restriction code	: (D/E)
Class	: 3
Classification Code	: F1
Environmentally hazardous mark	: NO
Hazard identification No	: 33

RID

UN number	: 1090
Dangerous Good Description	: UN 1090 ACETONE, 3, II
Labels	: 3
Packing group	: II
Class	: 3
Classification Code	: F1
Environmentally hazardous mark	: NO
Hazard identification No	: 33

IMDG

UN number	: 1090
Dangerous Good Description	: UN 1090 ACETONE, 3, II, IMDG Code Segregation Group - Not Relevant
Labels	: 3
Packing group	: II
Class	: 3
Marine pollutant (environmentally hazardous mark)	: NO
EmS	: F-E , S-D

IATA

UN number	: 1090
Dangerous Good Description	: UN 1090 ACETONE, 3, II
Labels	: 3
Packing group	: II
Class	: 3
Environmentally hazardous mark	: NO
Packing instruction (cargo aircraft)	: 364
Max net qty/pkg	: 60,00 L
Packing instruction (passenger aircraft)	: 353
Max net qty/pkg	: 5,00 L

ADN / ADNR

UN number	: 1090
Dangerous Good Description	: UN 1090 ACETONE, 3, II
Labels	: 3
Packing group	: II
Class	: 3
Classification Code	: F1
Environmentally hazardous mark	: NO

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to check their validity with your sales office.

15. REGULATORY INFORMATION

16. OTHER INFORMATION

Full text of R-phrases referred to under sections 2 and 3

R11	Highly flammable.
R36	Irritating to eyes.
R66	Repeated exposure may cause skin dryness or cracking.
R67	Vapours may cause drowsiness and dizziness.

Full text of H-Statements referred to under sections 2 and 3.

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Full text of P-Statements referred to under sections 2 and 3.

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233	Keep container tightly closed.
P240	Ground/bond container and receiving equipment.
P243	Take precautionary measures against static discharge.
P280	Wear protective gloves/ protective clothing/ eye protection/ face protection.
P303 + P361 + P353	IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P403 + P235	Store in a well-ventilated place. Keep cool.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. Such information is only given as a guidance to help the user handle, use, process, store, transport, dispose and release the product in satisfactory safety conditions and is not to be considered as a warranty or quality specification. It should be used in conjunction with technical sheets but do not replace them. Thus, the information only relates to the designated specific product and may not be applicable if such product is used in combination with other materials or in an other manufacturing process, unless otherwise specifically indicated. It does not release the user from ensuring he is in conformity with all regulations linked to its activity.

NB: In this document the numerical separator of the thousands is the "." (point), the decimal separator is "," (comma).