

Acetone SH HPLC grade

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Date of issue: 6/27/2019 Version: 1.0

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

1.1. Product identifier

Product form	: Substance
Substance name	: Acetone SH HPLC grade
Chemical name	: acetone; propan-2-one; propanone
IUPAC name	: propan-2-one
EC Index-No.	: 606-001-00-8
EC-No.	: 200-662-2
CAS-No.	: 67-64-1
Product code	: 74884736
Formula	: C3H6O
Synonyms	: 2-PROPANONE
Product group	: Raw material

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

1.2.1. Relevant identified uses

Industrial/Professional use spec	: Industrial For professional use only
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1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Scafell Organics
Lingfield Way
Yarm Road Business Park
DL1 4XX Darlington - UK
T +44 (0) 1949 823777
info@scafellorganics.com - www.scafellorganics.com

1.4. Emergency telephone number

Emergency number : +44 7590 545705

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2	H225
Serious eye damage/eye irritation, Category 2	H319
Specific target organ toxicity — Single exposure, Category 3, Narcosis	H336
Full text of H statements : see section 16	

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)	:		
		GHS02	GHS07

Signal word (CLP)	: Danger
Hazard statements (CLP)	: H225 - Highly flammable liquid and vapour. H319 - Causes serious eye irritation. H336 - May cause drowsiness or dizziness.
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P261 - Avoid breathing vapours, fume. P280 - Wear protective clothing, eye protection, face protection, protective gloves. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
EUH-statements	: EUH066 - Repeated exposure may cause skin dryness or cracking.

2.3. Other hazards

No additional information available

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SECTION 3: Composition/information on ingredients

3.1. Substances

Substance type : Mono-constituent

Name	Product identifier	%
Acetone SH HPLC grade	(CAS-No.) 67-64-1 (EC-No.) 200-662-2 (EC Index-No.) 606-001-00-8	100

Full text of H-statements: see section 16

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: If possible show this sheet, if not available show packaging or label. Do not leave affected person unattended. Never give anything by mouth to an unconscious person.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. Get immediate medical advice/attention.
First-aid measures after skin contact	: After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Do not remove clothing if it sticks to the skin. Seek medical attention if burns develop.
First-aid measures after eye contact	: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.
First-aid measures after ingestion	: Rinse mouth out with water. Get immediate medical advice/attention. Do not induce vomiting. Do not give an unconscious person anything to drink.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects	: May cause drowsiness or dizziness. Causes serious eye irritation.
Symptoms/effects after inhalation	: Inhalation may cause irritation (cough, short breathing, difficulty in breathing). May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: irritation (itching, redness, blistering). Prolonged or repeated contact may cause skin to become dry.
Symptoms/effects after eye contact	: Causes eye irritation. redness, itching, tears. Direct contact may result in corneal injury.
Symptoms/effects after ingestion	: Symptoms of ingestion include drowsiness, weakness, headache, dizziness, nausea, vomiting.

4.3. Indication of any immediate medical attention and special treatment needed

Get immediate medical advice/attention.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Highly flammable liquid and vapour. Vapours may travel long distances along ground before igniting/flashing back to vapour source.
Explosion hazard	: May form flammable/explosive vapour-air mixture. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Hazardous decomposition products in case of fire	: Carbon oxides (CO, CO ₂).

5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: seal off low-lying areas. Keep container tightly closed and away from heat, sparks and flame. Keep away from combustible materials.
Firefighting instructions	: Eliminate all ignition sources if safe to do so. Do not approach fire except upwind and only with proper skin and respiratory protection (supplied air only). In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus and chemically protective clothing.
Other information	: Warn all persons of toxic hazard.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear recommended personal protective equipment.
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Emergency procedures	: Do not touch or walk on the spilled product. Evacuate area. Mark out the contaminated area with signs and prevent access to unauthorized personnel. Do not breathe vapours. Do not get in eyes, on skin, or on clothing. Turn leaking containers leak-side up to prevent the escape of liquid.
Measures in case of dust release	: Shelter from vapours by keeping upwind. Special attention should be given to low areas/pits where flammable vapours can accumulate.

6.1.2. For emergency responders

Protective equipment	: Equip cleanup crew with proper protection. Use self-contained breathing apparatus and chemically protective clothing.
Emergency procedures	: All equipment used when handling the product must be grounded. Cover spill with non combustible material, e.g.: sand/earth. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous. Stop leak if safe to do so.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
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6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: Handle empty containers with care because residual vapours are flammable. Acetone reacts violently with phosphorous oxychloride.
Precautions for safe handling	: Avoid contact with skin, eyes and clothing. Avoid formation of vapours. Do not handle until all safety precautions have been read and understood. Ensure that there is a suitable ventilation system. Do not handle in a confined space.
Hygiene measures	: Take off immediately all contaminated clothing and wash it before reuse. Contaminated work clothing should not be allowed out of the workplace. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	: Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep in fireproof place.
Incompatible products	: Oxidizing agent. Bases. reducing agents. Reacts violently with : Phosphorous oxychloride.
Incompatible materials	: Sources of ignition. Direct sunlight. Heat sources.
Storage area	: Store in a dry place. Store in a closed container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Acetone SH HPLC grade (67-64-1)		
United Kingdom	Local name	Acetone
United Kingdom	WEL TWA (mg/m ³)	1210 mg/m ³
United Kingdom	WEL TWA (ppm)	500 ppm
United Kingdom	WEL STEL (mg/m ³)	3620 mg/m ³
United Kingdom	WEL STEL (ppm)	1500 ppm
United Kingdom	Regulatory reference	EH40. HSE

Acetone SH HPLC grade (67-64-1)

DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	2420 mg/m ³
Long-term - systemic effects, dermal	186 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1210 mg/m ³
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	200 mg/m ³
Long-term - systemic effects, oral	62 mg/kg bodyweight/day

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Acetone SH HPLC grade (67-64-1)	
Long-term - systemic effects, dermal	62 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	10.6 mg/l
PNEC aqua (marine water)	1.06 mg/l
PNEC aqua (intermittent, freshwater)	21 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	30.4 mg/kg dwt
PNEC sediment (marine water)	3.04 mg/kg dwt
PNEC (Soil)	
PNEC soil	29.5 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Floors should be impervious, resistant to liquids and easy to clean. Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures. Handle in accordance with good industrial hygiene and safety procedures.

Personal protective equipment:

Avoid all unnecessary exposure. Avoid inhalation of vapours. Wear recommended personal protective equipment.

Materials for protective clothing:					
Wear fire/flamm resistant/retardant clothing. Use chemically protective clothing					
Hand protection:					
The protective gloves to be used must comply with the specifications of the regulation 2016/425 and the resultant standard EN 374. Solvent-resistant gloves					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Butyl rubber	6 (> 480 minutes)	0.5mm		EN 374
Eye protection:					
Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Use eye protection according to EN 166, designed to protect against liquid splashes.					
Type	Use	Characteristics	Standard		
Safety goggles, Face shield	Droplet, vapours	tightly fitting safety goggles, With side shields	EN 166		
Skin and body protection:					
Emergency safety showers should be available in the immediate vicinity of any potential exposure. Keep suitable chemically resistant protective clothing readily available for emergency use					
Type	Standard				
Total impervious protective suits, gloves, and boots must be worn to prevent any contact with the product	EN 14605				
Respiratory protection:					
Keep self contained breathing apparatus readily available for emergency use. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended					
Device	Filter type	Condition	Standard		
Respiratory protective device with a particle filter	Filter AX (brown)	Vapour protection, Protection for Liquid particles	EN 14387		

Other information:

Do not eat, drink or smoke during use.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Molecular mass	: 58.0791 g/mol
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: -94 °C lit
Freezing point	: No data available
Boiling point	: 56 °C lit
Flash point	: -17 °C Closed cup
Auto-ignition temperature	: 465 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 245.3 hPa at 20.C
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.791 g/ml at 20.C
Solubility	: Miscible with water.
Log Pow	: -0.24
Viscosity, kinematic	: 0.405 mm ² /s
Viscosity, dynamic	: 0.32 mPa·s at 20.C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: 2 - 13 vol %

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

None under normal use.

10.4. Conditions to avoid

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

10.5. Incompatible materials

Bases. Oxidising agents. reducing agents. Reacts violently with : Phosphorus oxychloride.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition generates : Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	5800 mg/kg
LD50 dermal	7426 mg/kg Guinea pig
LC50 inhalation rat (mg/l)	50100 mg/m ³ 8h

Skin corrosion/irritation	: Not classified
Additional information	: Repeated exposure may cause skin dryness or cracking.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified

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Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: May cause drowsiness or dizziness.
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

Acetone SH HPLC grade (67-64-1)

Viscosity, kinematic	0.405 mm ² /s
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Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

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LC50 fish 1	5540 mg/l Oncorhynchus mykiss (rainbow trout) - 96h
LC50 other aquatic organisms 1	8800 mg/l Daphnia magna (Water flea) - 48h
EC50 Daphnia 1	8800 mg/l
NOEC (chronic)	2212 mg/l 28 days

12.2. Persistence and degradability

Acetone SH HPLC grade (67-64-1)

Persistence and degradability	Readily biodegradable.
Biochemical oxygen demand (BOD)	1.85 g O ₂ /g substance
Chemical oxygen demand (COD)	1.92 g O ₂ /g substance

12.3. Bioaccumulative potential

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Log Pow	-0.24
Bioaccumulative potential	Not potentially bioaccumulable.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product/Packaging disposal recommendations	: Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information






In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
1090	1090	1090	1090	1090

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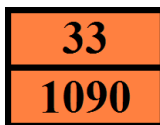
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14.2. UN proper shipping name				
ACETONE	ACETONE	Acetone	ACETONE	ACETONE
Transport document description				
UN 1090 ACETONE, 3, II, (D/E)	UN 1090 ACETONE, 3, II (-20°C c.c.)	UN 1090 Acetone, 3, II	UN 1090 ACETONE, 3, II	UN 1090 ACETONE, 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				
14.6. Special precautions for user				

Overland transport

Classification code (ADR) : F1
 Limited quantities (ADR) : 1I
 Excepted quantities (ADR) : E2
 Packing instructions (ADR) : P001, IBC02, R001
 Mixed packing provisions (ADR) : MP19
 Portable tank and bulk container instructions (ADR) : T4
 Portable tank and bulk container special provisions (ADR) : TP1
 Tank code (ADR) : LGBF
 Vehicle for tank carriage : FL
 Transport category (ADR) : 2
 Special provisions for carriage - Operation (ADR) : S2, S20
 Hazard identification number (Kemler No.) : 33
 Orange plates :



Tunnel restriction code (ADR) : D/E
 EAC code : •2YE

Transport by sea

Limited quantities (IMDG) : 1 L
 Excepted quantities (IMDG) : E2
 Packing instructions (IMDG) : P001
 IBC packing instructions (IMDG) : IBC02
 Tank instructions (IMDG) : T4
 Tank special provisions (IMDG) : TP1
 EmS-No. (Fire) : F-E
 EmS-No. (Spillage) : S-D
 Stowage category (IMDG) : E
 Flash point (IMDG) : -20°C to -18°C c.c.
 Properties and observations (IMDG) : Colourless, clear liquid, with a characteristic mint-like odour. Flashpoint: -20°C to -18°C c.c.
 Explosive limits: 2.5% to 13% Miscible with water.

Air transport

PCA Excepted quantities (IATA) : E2

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PCA Limited quantities (IATA)	: Y341
PCA limited quantity max net quantity (IATA)	: 1L
PCA packing instructions (IATA)	: 353
PCA max net quantity (IATA)	: 5L
CAO packing instructions (IATA)	: 364
CAO max net quantity (IATA)	: 60L
ERG code (IATA)	: 3H

Inland waterway transport

Classification code (ADN)	: F1
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

Rail transport

Classification code (RID)	: F1
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02, R001
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: LGBF
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 33

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions

Acetone SH HPLC grade is not on the REACH Candidate List

Acetone SH HPLC grade is not on the REACH Annex XIV List

Directive 2012/18/EU (SEVESO III)

15.1.2. National regulations

Germany

Reference to AwSV : Water hazard class (WKG) 1, Slightly hazardous to water (Classification according to AwSV; ID No. 6)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : The substance is not listed

NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : The substance is not listed

Denmark

Classification remarks : Emergency management guidelines for the storage of flammable liquids must be followed

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of H- and EUH-statements:	
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.