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

Product identifier
Trade name: Acetone
CAS Number:
67-64-1
EC number:
200-662-2
Index number:
606-001-00-8
Registration number 01-2119471330-49-XXXX
Relevant identified uses of the substance or mixture and uses advised against
Manufacture of Substance Distribution of substance Laboratory
Release agent
Rubber production Polymer processing Cleaning Agents Oil field drilling Blowing Agents Coatings
Adhesives

Sector of Use
SU3 Industrial uses: Uses of substances as such or in preparations at industrial sites
SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
SU8 Manufacture of bulk, large scale chemicals (including petroleum products)
SU9 Manufacture of fine chemicals
SU10 Formulation [mixing] of preparations and/or re-packaging (excluding alloys)
SU12 Manufacture of plastics products, including compounding and conversion
SU17 General manufacturing, e.g. machinery, equipment, vehicles, other transport equipment
SU24 Scientific research and development

Product category
PC1 Adhesives, sealants
PC9a Coatings and paints, thinners, paint removers
PC9b Fillers, putties, plasters, modelling clay
PC18 Ink and toners
PC19 Intermediate
PC21 Laboratory chemicals PC29 Pharmaceuticals
PC31 Polishes and wax blends
PC32 Polymer preparations and compounds
PC35 Washing and cleaning products (including solvent based products)
PC38 Welding and soldering products (with flux coatings or flux cores.), flux products

Application of the substance / the preparation Solvent

Details of the supplier of the safety data sheet

Supplier: **Aquaflame Systems**
Unit 5, Boulton Industrial Estate
Birmingham B18 5AU
Tel: +44 (0)121-233-1088
Eml: Sales@aquaflamesystems.com

2 Hazards identification

Classification of the substance or mixture
Classification according to Regulation (EC) No 1272/2008

GHS02 flame
Flam. Liq. 2 H225 Highly flammable liquid and vapour.

GHS07

Eye Irrit. 2	H319	Causes serious eye irritation.
STOT SE 3	H336	May cause drowsiness or dizziness.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

Xi; Irritant

R36: Irritating to eyes.

F; Highly flammable
R11: Highly flammable.
R66-67: Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Information concerning particular hazards for human and environment:
Repeated contact with skin may cause dermatitis due to the degreasing effect of the solvent.
Vapours of the product are heavier than air and may accumulate on the ground, in the sump of pits, drains or cellars with higher concentrations. Ground level ventilation is recommended.
May have a narcotizing effect after prolonged exposure (see R67).

Label elements
· Labelling according to Regulation (EC) No 1272/2008
The substance is classified and labelled according to the CLP regulation.
· Hazard pictograms

GHS02

GHS07

Signal word Danger
Hazard statements

H225	Highly flammable liquid and vapour.
H319+EUH066	Causes serious eye irritation. Repeated exposure may cause skin dryness or cracking.
H336	May cause drowsiness or dizziness.

Precautionary statements
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P243 Take precautionary measures against static discharge.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P233 Keep container tightly closed.

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.
Other hazards:
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.

3 Composition/information on ingredients

Chemical characterization: Substances
CAS No. Description
67-64-1 acetone
Identification number(s)
EC number: 200-662-2
Index number: 606-001-00-8

4 First aid measures

Description of first aid measures
After inhalation: Seek medical treatment, if any signs of impaired recovery or behaviour.
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation. Seek immediate medical advice.
After skin contact: If skin irritation continues, consult a doctor. Repeated skin contact may result in irritation and dermatitis. Always wear protective gloves suitable for this product.
After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor. Seek immediate medical advice.
After swallowing: Do not induce vomiting; rinse mouth with water, call for medical help immediately.
Rinse out mouth and then drink plenty of water.
Information for doctor:
Most important symptoms and effects, both acute and delayed
Headache Dizziness Nausea
Indication of any immediate medical attention and special treatment needed.
No further relevant information available.

5 Firefighting measures

Extinguishing media
Suitable extinguishing agents:
CO2, powder or water spray. Fight larger fires with aqueous film forming foam (AFFF). Cool containers with water spray. For safety reasons unsuitable extinguishing agents: Water with full jet.
Special hazards arising from the substance or mixture No further relevant information available.
Advice for firefighters
Protective equipment: Respiratory protective device.
Additional information
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures.
Wear protective equipment.
Keep unprotected persons away.
Ensure adequate ventilation.
Keep people at a distance and stay on the windward side.
Keep away from ignition sources.
Wear protective clothing.
Environmental precautions:
In case of seepage into the ground inform responsible authorities. Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
Methods and material for containment and cleaning up:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Send for recovery or disposal in suitable receptacles.
Blanket spillage with AFFF Foam Spray to seal from sources of ignition as a precautionary measure.
Reference to other sections
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment. See Section 13 for disposal information.

7 Handling and storage

Handling:
Precautions for safe handling
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
Use solvent-proof equipment.
Store in cool, dry place in tightly closed receptacles.
Take note of emission threshold.
Use only in well ventilated areas.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).

Information about fire - and explosion protection:
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Do not spray onto a naked flame, hot surfaces, electrical switchgear, live/battery connected electrics, or near to any potential sources of ignition.
Flammable gas-air mixtures may form in empty receptacles. Wear shoes with conductive soles.

Conditions for safe storage, including any incompatibilities
Storage:
Requirements to be met by storerooms and receptacles:
Store in a cool location.
Provide solvent resistant, sealed floor.
Prevent any seepage into the ground.
Provide ventilation for receptacles.
Use only receptacles specifically permitted for this substance/product.
Unsuitable material for receptacle: aluminium.
Store in area marked with EX signs under Dangerous Substances and Explosive Atmosphere Regs.
Follow HSE guidance for storage of flammable substances.
Flameproof/explosion proof electrical equipment must be used (ATEX Regulations)
Only store in suitable bunded storage areas. Do not store plastic IBC's with metal drums of other flammable substances.
Information about storage in one common storage facility:
Do not store together with alkalis (caustic solutions).
Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Store receptacle in a well ventilated area.
Store in a cool place.
You are recommended to refer to HSE publications HSG51 - The Storage of Flammable Liquids in Containers; and HSG140 - The Safe Use and Handling of Flammable Liquids, for more detailed understanding of the practices to be adhered to.
Plastic IBC's risk sudden and total loss of product in event of fire. Ensure bunded areas are adequate.
Do not store plastic IBC's with other packaged flammable goods.
Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

Additional information about design of technical facilities: No further data; see item 7.
Control parameters

Ingredients with limit values that require monitoring at the workplace:	
67-64-1 acetone	
WEL	Short-term value: 3620 mg/m3, 1500 ppm Long-term value: 1210 mg/m3, 500 ppm

Exposure controls
Personal protective equipment:
General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
Avoid alcohol consumption while working with the product.
Respiratory protection: Use suitable respiratory protective device in case of insufficient ventilation.
Recommended filter device for short term use: Filter AX
Protection of hands:
Solvent resistant gloves. Use gloves approved to BS EN 364 Chemical Resistant Gloves.
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.
Material of gloves
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Penetration time of glove material
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
Eye protection:


Tightly sealed goggles

Body protection: Protective work clothing
Risk management measures
Carry out risk assessment under Dangerous Substances and Explosive Atmospheres Regulations (DSEAR), COSHH.

9 Physical and chemical properties

Information on basic physical and chemical properties
General Information

Appearance:	
Form:	Liquid
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not determined
pH-value:	Not determined

Change in condition Melting point/Melting range: Boiling point/Boiling range:	 94.7°C 55.8-56.6°CpH-value:
Flash point:	< -18°C
Ignition temperature:	465°C
Decomposition temperature:	Not determined
Self-igniting:	Not determined
Danger of explosion:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits: Lower: Upper:	 2.6 Vol % 13 Vol %
Vapour pressure at 20°C:	233 hPa
Density at 20°C: Relative density Vapour density Evaporation rate	0.79 g/cm3 Not determined Not determined Not determined
Solubility in / Miscibility with water	Fully miscible
Segregation coefficient (n-octanol/water):	Not determined
Viscosity: Dynamic at 25°C: Kinematic:	 32 mPas Not determined
Solvent content: Other information	100 % No further relevant information available

10 Stability and reactivity

Reactivity
Chemical stability vapours form potentially explosive mixtures with air.
Thermal decomposition / conditions to be avoided:
No decomposition if used according to specifications and industry good practice.
Possibility of hazardous reactions No dangerous reactions known.
Conditions to avoid No further relevant information available.
Incompatible materials: Acids, strong oxidising agents, strong alkalis.
Hazardous decomposition products: Carbon monoxide if incomplete combustion.

11 Toxicological information

Information on toxicological effects
Acute toxicity:

LD/LC50 values relevant for classification:		
Oral	LD50	5800 mg/kg (rat)
Dermal	LD50	20000 mg/kg (rabbit)

Primary irritant effect:
On the skin: Prolonged contact may result in skin irritation.
On the eye: Irritating effect.
Sensitization: No sensitizing effects known.

12 Ecological information

Toxicity
Acquatic toxicity: No further relevant information available.
Persistence and degradability: No further relevant information available.
Behaviour in environmental systems:
Bioaccumulative potential: No further relevant information available.
Mobility in soil: No further relevant information available.
Additional ecological information:
General notes:
Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
Results of PBT and vPvB assessment
PBT: Not applicable.
vPvB: Not applicable.
Other adverse effects No further relevant information available.

13 Disposal considerations

Waste treatment methods
Recommendation
Must not be disposed together with household refuse. Do not allow product to reach sewage system.
European waste catalogue Refer to our office for EWC codes for disposal of used solvent.
Uncleaned packaging:
Recommendation:
Disposal must be made according to official regulations. Refer to Hazardous Waste Regulations 2005. Requires movement under Consignment note by licensed waste carrier. We can provide this service - please contact us for more details.
Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning. Please contact us if you wish to return your used drums (205litre only).Recommended cleansing agents:
Water, if necessary together with cleansing agents.

14 Transport information

UN-Number		
ADR, IMDG, IATA	1090	
UN proper shipping name		
ADR	1090 ACETONE	
IMDG, IATA	ACETONE	
Transport hazard class(es)		
ADR		
	Class	3 Flammable liquids.
	Label	3
	IMDG, IATA	
	Class	3 Flammable liquids.
	Label	3
Packing group		
ADR, IMDG, IATA		II
Environmental hazards:		
Marine pollutant:		No
Special precautions for user		Warning: Flammable liquids.
Danger code (Kemler):		33
EMS Number:		F-E,S-D
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code		Not applicable.
Transport/Additional information:		
ADR		
Tunnel restriction code		D/E
UN "Model Regulation":		UN1090, ACETONE, 3, II

15 Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture
National regulations:
Other regulations, limitations and prohibitive regulations
The Dangerous Substances and Explosive Atmoshere Regulations (DSEAR)
Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.
Relevant phrases
The 'R' phrase listed below are for reference only and do not form the R phrases for the labelling or classification of the product. Refer to section 3 for this information.
Training hints
Make users aware of the contents of this document and train according to use and risks within your operation.
Department issuing MSDS: Product safety department.
Contact: Sales Office in the first instance.
Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
ICAO: International Civil Aviation Organization
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.