



1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING				
1.1 Product ia	lentifiers			
Product name:	ACETIC ANHYDRIDE			
CAS-No.:	108-24-7			
Product Numb	er: A65523			
1.2 Relevant i	dentified uses of the substance or mixture and uses advised against			
Identified uses	: Laboratory chemicals, Manufacture of substances			
1.3 Details of	1.3 Details of the supplier of the safety data sheet			
Company :	Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,			
	UNITED KINGDOM			
Telephone:	+44 (0)845 1200 506 Fax: +44 (0)161 367 2140			
Email:	enquiries@philipharris.co.uk			
1.4 Emergenc	y telephone number			
Emergency Ph	one #: +44 (0)845 1200 506			

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [EU-GHS/CLP]

This substance is not classified as dangerous according to Directive 67/548/EEC.

2.2 Label elements

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

Pictogram:	\checkmark \checkmark \checkmark
Signal word:	Danger
Hazard statement(s):	
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H332	Harmful if inhaled.
Precautionary statement(s):	
P280	Wear protective gloves/ protective clothing/ eye protection/ face
protection.	

P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes.				
Remove contact lenses, if prese	Remove contact lenses, if present and easy to do. Continue rinsing.				
P310	Immediately call a POISON CENTER or doctor/ physician				
Supplemental Hazard Statemer	its:				
С	Corrosive				
R-phrase(s):					
R10	Flammable.				
R20/22	Harmful by inhalation and if swallowed.				
R34	Causes burns.				
S-phrase(s)					
S26	In case of contact with eyes, rinse immediately with plenty of water				
and seek medical advice.					
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.				
S45	In case of accident or if you feel unwell, seek medical advice				
immediately (show the label where possible).					

2.3 Other hazards – Irritating to eyes and skin.

3. COMPOSITION/INFORMATI 3.1 Substances	ON ON INGREDIENTS		
Acetic acid			
		ОН	
Formula:	$C_2H_4O_2$	0	
Molecular Weight:	60.05g/mol		
Component Concentration:	-		
CAS-No.:	64-19-7		
EC-No.:	200-580-7		
3.2 Mixtures (For the full text of the R-phrases mentioned in this Section, see Section 16.)			
Component	Classification	Concentration	

Component	Classification	Concentration
Acetic acid	C, R10 - R35	>=10 - <25%
Water	-	>75 - <=90%

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice:

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled:

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact:

Wash off with soap and plenty of water. Consult a physician.

In case of eye contact:

Flush eyes with water as a precaution.

If swallowed:

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea

4.3 Indication of immediate medical attention and special treatment needed

no data available

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture

no data available

5.3 Precautions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

5.4 Further information

no data available

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6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

6.4 Reference to other sections

For disposal see section 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid inhalation of vapour or mist. Keep away from sources of ignition. Take measures to prevent the build up of electrostatic charge.

7.2 Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

7.3 Specific end uses

no data available

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

Component	CAS No.	Value	Control Parameters	Update
Acetic acid	64-19-7	TWA	10ppm 25mg/m ³	1991-07-05
Europe Commission Directive 91/322/EEC on establishing indicative limit values. Remarks Indicative.				

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8.2 Exposure controls

Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection

Tightly fitting safety goggles. Faceshield (8-inch minimum). Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

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9. PHYSICAL AND CHEMICAL PROPERTIES

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9.1 Information on basic physical and chemical properties			
a) Appearance: Form:	Liquid Colour : Colourless		
b) Odour:	Vinegar-like		
c) Odour Threshold:	0.48ppm		
d) pH:	no data available		
e) Melting/freezing point:	Melting point/range: 4°C		
f) Initial boiling point and boiling	g range: 117.5°C		
g) Flash point:	40°C		
h) Evaporation rate:	no data available		
i) Flammability (solid, gas):	no data available		
j) Upper/lower flammability or e	explosive limits: 4-16%(V)		
k) Vapour pressure:	15.2hPa at 20°C		
I) Vapour density:	no data available		
m) Relative density:	1.049g/cm ³		
n) Water solubility:	miscible in water		
o) Partition coefficient: n-octanol/water: no data available			
p) Autoignition temperature:	427°C		
q) Decomposition temperature	no data available		
r) Viscosity:	0.001056 Pa s at 25°C		
s) Explosive properties:	no data available		
t) Oxidizing properties:	no data available		
9.2 Other safety information			
no data available			

10. STABILITY AND REACTIVITY

10.1 Reactivity

no data available

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Oxidizing agents, Metals, Amines, Alcohols, Peroxides, permanganates, e.g. potassium

 $permanganate, \ soluble \ carbonates \ and \ phosphates, \ Hydroxides.$

10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity

no data available

Specific target organ toxicity - single exposure

no data available

Specific target organ toxicity - repeated exposure

no data available

Aspiration hazard

no data available

Potential health effects

Inhalation	May be harmful if inhaled. Material is extremely destructive to the tissue of
the mucous membrane	es and upper respiratory tract.
Ingestion	May be harmful if swallowed. Causes burns.

Skin May be harmful if absorbed through skin. Causes skin burns.

Eyes May cause eye irritation.

Signs and Symptoms of Exposure

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin, spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea.

Target organs: Teeth, Kidneys

Additional Information

RTECS: Not available.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

no data available

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging

Dispose of as unused product.

14. TRANSPORT INFORMATION					
14.1 UN-Number					
ADR/RID:	2790	IMDG:	2790	IATA:	2790
14.2 UN prop	per shipp	ing name			
ADR/RID:		ACETIC ACID SOLUTION			
IMDG:		ACETIC ACID SOLUTION			
IATA:		ACETIC ACID SOLUTION			
14.3 Transpo	ort hazaro	d class(es)			
ADR/RID:	8	IMDG:	8	IATA:	8
14.4 Packaging group					
ADR/RID:	П	IMDG:	II	IATA:	II
14.5 Environmental hazards					
ADR/RID:	no	IMDG Marir	ne pollutant: no	IATA: no	
14.6 Special precautions for users					
no data available					

15. REGULATORY INFORMATION

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

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

no data available

15.2 Chemical Safety Assessment

no data available

16. OTHER INFORMATION

Flam. Liq.	Flammable liquids
H226	Flammable liquid and vapour.
H314	Causes severe skin burns and eye damage.
Skin Corr.	Skin corrosion
С	Corrosive
R10	Flammable.
R35	Causes severe burns.