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

Product identifier:

Product name: Acetone

Synonyms; trade names: Propan-2-one, propanone

REACH registration number: 01-2119471330-49-XXXX

CAS number: 67-64-1

EU index number: 606-001-00-8

EC number: 200-662-2

Relevant identified uses of the substance or mixture and uses advised against:

Identified uses: Solvent for Industrial. Use Chemical intermediate. Uses in coatings. Laboratories Use in cleaning agents. Use as binders and release agents. Rubber production and processing. Polymer manufacturing. Polymer processing. Use in Oil and Gas field drilling and production operations. Blowing agents. Mining chemicals.

Company name: Nexchem Ltd
Unit 3 Barshaw Park
Leycroft Road
Leicester
LE4 1ET
Tel: 0116 2311130
24/7 Emergency Tel: 0800 246 1274
Email: sales@nexchem.co.uk

2. HAZARDS IDENTIFICATION

Classification of the substance or mixture:

Classification (EC 1272/2008):

Physical hazards: Flam. Liq. 2 - H225

Health hazards: Eye Irrit. 2 - H319 STOT SE 3 - H336

Environmental hazards: Not Classified

Label elements:

EC number: 200-662-2

Hazard pictograms:

Signal word: Danger

[cont…]

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

Precautionary statements: P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P243 Take action to prevent static discharges.
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.
P405 Store locked up.

Supplemental label information: EUH066 Repeated exposure may cause skin dryness or cracking.

Other hazards:

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substances:

Product name: Acetone
REACH registration number: 01-2119471330-49-XXXX
EU index number: 606-001-00-8
CAS number: 67-64-1
EC number: 200-662-2

4. FIRST AID MEASURES

Description of first aid measures:

General information: Keep affected person away from heat, sparks and flames. Following ingestion, adsorbents such as activated charcoal may be of value.

Inhalation: Move affected person to fresh air at once. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Keep affected person warm and at rest. Get medical attention immediately.

Ingestion: Rinse mouth thoroughly with water. DO NOT induce vomiting. Get medical attention immediately. Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing.

Skin contact: Remove affected person from source of contamination. Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

Eye contact: Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed:

General information: See Section 11 for additional information on health hazards.

Indication of any immediate medical attention and special treatment needed:

Specific treatments: Treat symptomatically.

[cont…]

5. FIRE-FIGHTING MEASURES

Extinguishing media:

Suitable extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide or dry powder. Water spray, fog or mist. Dry chemicals, sand, dolomite etc.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture:

Specific hazards: Fire creates: Oxides of the following substances: Carbon. The product is highly flammable. Forms explosive mixtures with air. Vapours are heavier than air and may spread near ground and travel a considerable distance to a source of ignition and flash back.

Advice for firefighters:

Protective actions during firefighting: Control run-off water by containing and keeping it out of sewers and watercourses. Do not use water jet as an extinguisher, as this will spread the fire. Use water spray to reduce vapours. If risk of water pollution occurs, notify appropriate authorities. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Wear self-contained breathing apparatus.

Special protective equipment for firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures:

Personal precautions: Wear appropriate protective clothing and respiratory protection. Ensure good ventilation. Avoid inhalation of vapours and contact with skin and eyes. Vapour may cause drowsiness and dizziness. Repeated exposure can cause skin drying and cracking.

Environmental precautions: Do not let the product or washing down water enter natural water courses or the sewer.

Methods and material for containment and cleaning up:

Methods for cleaning up: Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Provide adequate ventilation. Contain spillage with sand, earth or other suitable non-combustible material. Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb in vermiculite, dry sand or earth and place into containers.

Reference to other sections: For personal protection, see Section 8. For waste disposal, see Section 13.

[cont…]

7. HANDLING AND STORAGE

Precautions for safe handling:

Usage precautions: Keep away from heat, sparks and open flame. Avoid spilling. Avoid contact with skin and eyes. Provide adequate ventilation. Avoid inhalation of vapours. Use approved respirator if air contamination is above an acceptable level. Container must be kept tightly closed when not in use.

Conditions for safe storage, including any incompatibilities:

Storage precautions: Keep away from oxidising materials, heat and flames. May attack some plastics, rubber and coatings. Store in tightly-closed, original container in a dry, cool and well-ventilated place. Earth container and transfer equipment to eliminate sparks from static electricity. Suitable container materials: Mild steel. Stainless steel. Aluminium and its alloys. Copper and its alloys. Do not store in certain plastics.

Storage class: Flammable liquid storage.

Specific end use(s):

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters:

Occupational exposure limits:

Long-term exposure limit (8-hour TWA): WEL 500 ppm 1210 mg/m³

Short-term exposure limit (15-minute): WEL 1500 ppm 3620 mg/m³

WEL = Workplace Exposure Limit

DNEL:

Industry - Dermal; Long term : 186 mg/kg/day
Industry - Inhalation; Short term : 2420 mg/m³
Industry - Inhalation; Long term : 1210 mg/m³
Consumer - Oral; Long term : 62 mg/kg/day
Consumer - Dermal; Long term : 62 mg/kg/day
Consumer - Inhalation; Long term : 200 mg/m³

PNEC:

- Fresh water; 10.6 mg/l
- Marine water; 1.06 mg/l
- Sediment; 30.4 mg/kg
- Sediment; 3.04 mg/kg
- Soil; 0.112 mg/kg
- STP; 29.5 mg/l

Exposure controls:

Protective equipment:



[cont…]

Appropriate engineering controls: Provide adequate general and local exhaust ventilation.

Eye/face protection: Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Chemical splash goggles or face shield. Manufactured/Tested in accordance with EN 166.

Hand protection: Wear protective gloves made of the following material: Butyl rubber. Use full length gloves. Manufactured/tested in accordance with EN 374. Determined penetration times carried out in accordance with EN374 part III are not performed under practical conditions, therefore, a maximum wearing time corresponding to 50% of the penetration time is recommended.

Other skin and body protection: Use engineering controls to reduce air contamination to permissible exposure level. Wear appropriate clothing to prevent repeated or prolonged skin contact. In confined or poorly ventilated spaces, a supplied-air respirator must be worn. Provide eyewash station and safety shower.

Hygiene measures: Provide eyewash station and safety shower. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Do not smoke in work area. Contaminated clothing should be placed in a closed container for disposal or decontamination.

Respiratory protection: If ventilation is inadequate, suitable respiratory

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: Clear liquid.

Colour: Colourless.

Odour: Sweetish. Aromatic.

pH: pH (diluted solution): 5-6 50

Melting point: -95°C

Initial boiling point and range: 56°C @

Flash point: -17°C Closed cup.

Evaporation rate: 2.0 (diethyl ether = 1)

Upper/lower flammability or explosive limits:

Lower flammable/explosive limit: 2.50

Upper flammable/explosive limit: 14.3

Vapour pressure: 240 hPa @ °C

Vapour density: 2.1

Relative density: 0.79 @ 20°C

Solubility(ies): 100 @ °C Miscible with water.

Partition coefficient: -0.24

Auto-ignition temperature: 465°C

Other information:

Refractive index: 1.358 - 1.359

[cont…]

10. STABILITY AND REACTIVITY

Reactivity: The following materials may react with the product: Alkalis.

Chemical stability:

Stability: Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous reactions: Will not polymerise.

Conditions to avoid: Avoid heat, flames and other sources of ignition. Avoid contact with strong oxidising agents.

Incompatible materials:

Materials to avoid: Strong oxidising agents. Strong alkalis. Amines.

Hazardous decomposition products:

Fire creates: Oxides of the following substances: Carbon.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects:

Toxicological effects: Low order of acute toxicity. Oral rat LD50:1700-10700mg/kg. A single application to the rabbit eye produced conjunctival irritation and transient corneal damage (stippling epithelial damage): A single 4h semi occlusive application to intact rabbit skin produced no sign of dermal irritation. The product did not exhibit mutagenic activity (with and without metabolic activation) in: Salmonella typhimurium. Chinese hamster ovary cells and human lymphocytes. Negative results were achieved during studies designed to investigate the potential to induce birth defects by inhalation.

Acute toxicity – dermal:

Acute toxicity dermal (LD_{50} mg/kg): 15,800.0

Species: Rat

Skin corrosion/irritation:

Animal data: Irritating.

Serious eye damage/irritation:

Serious eye damage/irritation: Moderately irritating.

Germ cell mutagenicity:

Genotoxicity - in vitro: Negative.

[cont…]

Inhalation: Vapours may cause drowsiness and dizziness.

Skin contact: Repeated exposure may cause skin dryness or cracking.

Eye contact: Irritating to eyes. May cause chemical eye burns.

Acute and chronic health hazards: Gas or vapour is harmful on prolonged exposure or in high concentrations. Symptoms following overexposure may include the following: Irritation of eyes and mucous membranes. Narcotic effect. A single exposure may cause the following adverse effects: Central nervous system depression. Prolonged contact may cause dryness of the skin. Repeated exposure may cause chronic eye irritation.

Route of exposure: Inhalation Skin absorption

Target organs: Central nervous system Eyes Gastro-intestinal tract Respiratory system, lungs Skin

Medical symptoms: Irritation of eyes and mucous membranes. Upper respiratory irritation. Skin irritation.

Medical considerations: Skin disorders and allergies

12. ECOLOGICAL INFORMATION

Toxicity:

Acute aquatic toxicity:

Acute toxicity – fish: LC50, 96 hours: 5540 mg/l, Oncorhynchus mykiss (Rainbow trout)

LC_{50}, 96 hours: >5500 mg/l, Fish

Acute toxicity – aquatic invertebrates: EC_{50}, 48 hours: 8800 mg/l, Daphnia magna

Persistence and degradability: Readily biodegradable.

Bioaccumulative potential: The product is not bioaccumulating. BCF: 3

Partition coefficient: -0.24

Mobility in soil:

Adsorption/desorption coefficient: Water - : 1.5 @ 20°C

Henry's law constant: 2929 Pa m3/mol @ 25°C

Results of PBT and vPvB assessment: This product does not contain any substances classified as PBT or vPvB.

Other adverse effects: No known significant effects.

13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

General information: Contaminated packages must be completely emptied before sending away for laundering and re-use.

Disposal methods: Waste material and any included combustible absorbent and containers should be suitable for incineration at an approved facility. Absorb in vermiculite, dry sand or earth and place into containers. Dispose of waste via a licensed waste disposal contractor. Confirm disposal procedures with environmental engineer and local regulations. Avoid the spillage or runoff entering drains, sewers or watercourses. Uncleaned empty packages should be disposed of in the same manner as the contents.

[cont…]

Waste class EWC NUMBER: Allocation of a waste code number in accordance with the European Waste Catalogue, should be carried out in agreement with an EA authorised waste disposal company.

14. TRANSPORT INFORMATION

2491

UN number:

UN No. (ADR/RID): 1090

UN No. (IMDG): 1090

UN No. (ICAO): 1090

UN No. (ADN): 1090

UN proper shipping name:

Proper shipping name (ADR/RID): ACETONE

Proper shipping name (IMDG): ACETONE

Proper shipping name (ICAO): ACETONE

Proper shipping name (ADN): ACETONE

Transport hazard class(es):

ADR/RID class: 3

ADR/RID classification code: F1

ADR/RID label: 3

IMDG class: 3

ICAO class/division: 3

ADN class: 3

Transport labels:

Packing group:

ADR/RID packing group: II

IMDG packing group: II

ICAO packing group: II

ADN packing group: II

Environmental hazards:

Environmentally hazardous substance/marine pollutant: No.

[cont…]

Special precautions for user:

EmS: F-E, S-D

ADR transport category: 2

Emergency Action Code: •2YE

Hazard Identification Number (ADR/RID): 33

Tunnel restriction code: (D/E)

Transport in bulk according to Annex II of MARPOL and the IBC Code:

15. REGULATORY INFORMATION

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

EU legislation: Regulation (EC) No 1272/2008 CLP.
Regulation (EC) No 1907/2006 REACH.

Guidance: Workplace Exposure Limits EH40.

Chemical safety assessment: A chemical safety assessment has been carried out.

Note: The regulatory information given above only indicates the principal regulations specifically Applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

16. OTHER INFORMATION

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

Legal disclaimer: The information contained in this SDS does not constitute a risk assessment, and should not replace the user's own assessment of risks as required by other health and safety legislation. This advice is given by Nexchem Ltd who accept no legal liability for it except otherwise provided by law. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.