

### SECTION 1: IDENTIFICATION

#### 1.1. - IDENTIFICATION

|                |                                                                                                                                                                                                                  |
|----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product form   | : Substance                                                                                                                                                                                                      |
| Substance name | : Acetone                                                                                                                                                                                                        |
| Chemical name  | : 2-Propanone                                                                                                                                                                                                    |
| CAS-No.        | : 67-64-1                                                                                                                                                                                                        |
| Product code   | : LC10420, LC10425                                                                                                                                                                                               |
| Formula        | : C <sub>3</sub> H <sub>6</sub> O                                                                                                                                                                                |
| Synonyms       | : 2-propanone / beta-ketopropane / dimethyl formaldehyde / dimethyl ketone / dimethylketal /<br>DMK (=dimethyl ketone) / keto propane / methyl ketone / pyroacetic acid / pyroacetic ether/<br>pyroacetic spirit |

#### 1.2. - RECOMMENDED USE AND RESTRICTIONS OF USE

|                              |                                                        |
|------------------------------|--------------------------------------------------------|
| Use of the substance/mixture | : Solvent<br>Cleaning product<br>Chemical raw material |
| Recommended use              | : Laboratory chemicals                                 |
| Restrictions on use          | : Not for food, drug or household use                  |

#### 1.3. - SUPPLIER

Superior Surface Solutions  
701 Woodswether Rd.  
Kansas City, MO 64105  
T 816-471-5227 F 816-471-3998

#### 1.4. - EMERGENCY TELEPHONE NUMBER

|                  |                            |
|------------------|----------------------------|
| Emergency number | : INFOTRAC: 1-800-535-5053 |
|------------------|----------------------------|

### SECTION 2: HAZARD(S) IDENTIFICATION

#### 2.1. - CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

##### GHS-US classification

|                                           |      |                                    |
|-------------------------------------------|------|------------------------------------|
| Flammable liquids                         | H225 | Highly flammable liquid and vapour |
| Category 2                                |      |                                    |
| Serious eye damage/eye                    | H319 | Causes serious eye irritation      |
| Specific target organ                     | H336 | May cause drowsiness or dizziness  |
| toxicity (single exposure)                |      |                                    |
| Category 3                                |      |                                    |
| Full text of H statements: see section 16 |      |                                    |

#### 2.2. - GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS

##### GHS-US labeling

Hazard pictograms (GHS US)



GHS02



GHS07

|                                   |                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Signal word (GHS US)              | : Danger                                                                                                                                                                                                                                                                                                                                                                                                         |
| Hazard statements (GHS US)        | : H225 - Highly flammable liquid and vapour<br>H319 - Causes serious eye irritation<br>H336 - May cause drowsiness or dizziness                                                                                                                                                                                                                                                                                  |
| Precautionary statements (GHS US) | : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.<br>P233 - Keep container tightly closed.<br>P240 - Ground/bond container and receiving equipment.<br>P241 - Use explosion-proof electrical, lighting, ventilating equipment<br>P242 - Use only non-sparking tools.<br>P243 - Take precautionary measures against static discharge.<br>P261 - Avoid breathing mist, spray, vapors. |

### 2.2. - GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS (CONT)

Precautionary statements (GHS US)

P264 - Wash exposed skin thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear eye protection, face protection, protective clothing, protective gloves.  
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 person to fresh air and keep 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 P312 - Call a POISON CENTER or doctor/physician if you feel unwell.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2) to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P405 - Store locked up.  
P501 - Dispose of contents/container to comply with local, state and federal regulations  
P235 - Keep cool.

### 2.3. - OTHER HAZARD WHICH DO NOT RESULT IN CLASSIFICATION

Other hazards not contributing to the classification : None

### 2.4. - UNKNOWN ACTURE TOXICITY (GHS US)

Not applicable

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.1. - SUBSTANCES

Substance type : None

| Name                       | Product Identifier | %   | GHS-US classification                                        |
|----------------------------|--------------------|-----|--------------------------------------------------------------|
| Acetone (Main constituent) | (CAS-No.) 67-64-1  | 100 | Flam. Liq. 2, H225<br>Eye Irrit. 2A, H319<br>STOT SE 3, H336 |

Full text of hazard classes and 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 : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital.

First-aid measures after inhalation : Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Remove clothing before washing. Take victim to a doctor if irritation persists.

First-aid measures after eye contact : Rinse immediately with plenty of water. Remove contact lenses, if present and easy to do. Continue rinsing. Do not apply neutralizing agents. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not give milk/oil to drink. Do not induce vomiting. Give activated charcoal. Call Poison Information Centre ([www.big.be/antigif.htm](http://www.big.be/antigif.htm)). Consult a doctor/medical service if you

### 4.2. - MOST IMPORTANT SYMPTOMS AND EFFECTS (ACUTE AND DELAYED)

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness.

Symptoms/effects after skin contact : ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.

Symptoms/effects after eye contact : Irritation of the eye tissue.

### 4.2. - MOST IMPORTANT SYMPTOMS AND EFFECTS (ACUTE AND DELAYED) (CONT)

|                                                  |                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms/effects after ingestion                 | : Dry/sore throat. Risk of aspiration pneumonia. Symptoms similar to those listed under inhalation. AFTER ABSORPTION OF LARGE QUANTITIES: Irritation of the gastric/intestinal mucosa. Change in the blood composition. Change in urine output. Renal disease. Enlargement/disease of the liver. |
| Symptoms/effects upon intravenous administration | : Not available.                                                                                                                                                                                                                                                                                 |
| Chronic symptoms                                 | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Skin rash/inflammation. Dry/sore throat. Headache. Nausea. Feeling                                                                                                                                                                          |

### 4.3. - IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NECESSARY

Obtain medical assistance.

## SECTION 5: FIRE-FIGHTING MEASURES

### 5.1. - SUITABLE (AND UNSUITABLE) EXTINGUISHING MEDIA

|                                |                                                                                                                                                                                                                            |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media   | : Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand. |
| Unsuitable extinguishing media | : Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion.                                                                                                                      |

### 5.2. - SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

|                  |                                                                                                                                                                                                                                                                                |
|------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire hazard      | : DIRECT FIRE HAZARD. Highly flammable liquid and vapour. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. Gas/vapor spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard". |
| Explosion hazard | : DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. Heat may cause pressure rise in tanks/drums: explosion risk. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard".                 |
| Reactivity       | : Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours.                                                                                                                                                |

### 5.3. - SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIRE-FIGHTERS

|                                |                                                                                                                                                                                                                         |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions      | : Cool tanks/drums with water spray/remove them into safety. Physical explosion risk: extinguish/cool from behind cover. Do not move the load if exposed to heat. After cooling: persistent risk of physical explosion. |
| Protection during firefighting | : Heat/fire exposure: compressed air/oxygen apparatus.                                                                                                                                                                  |

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1. - PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

#### 6.1.1. For non-emergency personnel

|                      |                                                                                                                                                                                                                                                                                                            |
|----------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Protective equipment | : Gloves. Protective goggles. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus.                                                                                                                                                                                              |
| Emergency procedures | : Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion-proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes. |

#### 6.1.2. For emergency responders

|                      |                                              |
|----------------------|----------------------------------------------|
| Protective equipment | : Equip cleanup crew with proper protection. |
| Emergency procedures | : Ventilate area.                            |

### 6.2. - ENVIRONMENTAL PRECAUTIONS

Prevent spreading in sewers.

### 6.3. - METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|-------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| For containment         | : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.                                                                                                          |
| Methods for cleaning up | : Take up liquid spill into inert absorbent material, e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Spill must not return in its original container. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. |

### 6.4. - REFERENCE TO OTHER SECTIONS

See Heading 8. Exposure controls and personal protection.

## SECTION 7: HANDLING AND STORAGE

### 7.1. - PERSONAL FOR SAFE HANDLING

Precautions for safe handling

: Use spark-/explosion proof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle cleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Keep container tightly closed.

Hygiene measures

: Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### 7.2. - CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Storage conditions

: Keep only in the original container in a cool, well ventilated place away from : Heat sources, Direct sun light, incompatible materials. Keep container closed when not in use.

Incompatible products

: Strong bases. Strong acids.

Incompatible materials

: Sources of ignition. Direct sunlight.

Storage temperature

: 15 - 20 °C

Heat-ignition

: KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage

: KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. strong acids. (strong) bases. halogens. amines.

Storage area

: Store in a cool area. Keep out of direct sunlight. Store in a dry area. Store in a dark area. Ventilation at floor level. Fireproof storeroom. Provide for an automatic sprinkler system. Provide for a tub to collect spills. Provide the tank with earthing. Meet the legal requirements.

Special rules on packaging

: SPECIAL REQUIREMENTS: closing. with pressure relief valve. clean. opaque. correctly labeled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials

: SUITABLE MATERIAL: steel. stainless steel. carbon steel. aluminum. iron. copper. nickel. bronze. glass. MATERIAL TO AVOID: synthetic material.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. - CONTROL PARAMETERS

| Acetone (67-64-1) |                        |           |
|-------------------|------------------------|-----------|
| ACGIH             | ACGIH TWA (ppm)        | 250 ppm   |
| ACHIH             | ACHIH STEL (ppm)       | 500 ppm   |
| NIOSH             | NIOSH REL (TWA)(mg/m³) | 590 mg/m³ |
| NIOSH             | NIOSH REL (TWA) (ppm)  | 250 ppm   |

### 8.2. - APPROPRIATE ENGINEERING CONTROLS

Appropriate engineering controls

: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

### 8.3. - INDIVIDUAL PROTECTION MEASURES/PERSONAL PROTECTIVE EQUIPMENT

#### PERSONAL PROTECTIVE EQUIPMENT:

Safety glasses. Gloves. Protective clothing. Face shield. High gas/vapor concentration: gas mask with filter type A.



#### MATERIALS FOR PROTECTIVE CLOTHING:

GIVE GOOD RESISTANCE: butyl rubber. tetrafluoroethylene. GIVE LESS RESISTANCE: chlorosulfonated polyethylene. natural rubber. neoprene. polyurethane. PVA. styrene-butadiene rubber. GIVE POOR RESISTANCE: nitrile rubber. polyethylene. PVC. viton. nitrile rubber/PVC

### 8.3. - INDIVIDUAL PROTECTION MEASURES/PERSONAL PROTECTIVE EQUIPMENT (CONT)

#### HAND PROTECTION:

Gloves

#### HAND PROTECTION:

Head/neck protection. Protective clothing

#### EYE PROTECTION:

Safety glasses

#### SKIN AND BODY PROTECTION:

Head/neck protection. Protective clothing

#### RESPIRATORY PROTECTION:

Full face mask with filter type AX at conc. in air

> exposure limit

#### OTHER INFORMATION:

Do not eat, drink or smoke during use.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. - INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

|                                               |                                                                                                                                                                                              |
|-----------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Physical state                                | : Liquid                                                                                                                                                                                     |
| Appearance                                    | : Liquid.                                                                                                                                                                                    |
|                                               | : Colorless                                                                                                                                                                                  |
|                                               | : Aromatic odor Sweet odor Fruity odor                                                                                                                                                       |
| Odor threshold                                | : No data available                                                                                                                                                                          |
| pH                                            | : 7 (10 g/l)                                                                                                                                                                                 |
| Melting point                                 | : -95 °C                                                                                                                                                                                     |
| Freezing point                                | : No data available                                                                                                                                                                          |
| Boiling point                                 | : 56 °C                                                                                                                                                                                      |
| Critical temperature                          | : 235 °C                                                                                                                                                                                     |
| Critical pressure                             | : 47010 hPa                                                                                                                                                                                  |
| Flash point                                   | : -17 °C (Closed cup)                                                                                                                                                                        |
| Relative evaporation rate (butyl acetate=1)   | : 6                                                                                                                                                                                          |
| Relative evaporation rate (ether=1)           | : 2                                                                                                                                                                                          |
| Flammability (solid, gas)                     | : Non flammable.                                                                                                                                                                             |
| Vapor pressure                                | : 247 hPa (20 °C)                                                                                                                                                                            |
| Vapor pressure at 50 °C                       | : 828 hPa                                                                                                                                                                                    |
| Relative vapor density at 20 °C               | : 2                                                                                                                                                                                          |
| Relative density                              | : 0.79                                                                                                                                                                                       |
| Relative density of saturated gas/air mixture | : 1.2                                                                                                                                                                                        |
| Specific gravity / density                    | : 786 kg/m <sup>3</sup>                                                                                                                                                                      |
| Molecular mass                                | : 58.08 g/mol                                                                                                                                                                                |
| Solubility                                    | : Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in dimethyl ether. Soluble in petroleum spirit. Soluble in chloroform. Soluble in dimethylformamide. Soluble in oils/fats. |
|                                               | Water: complete                                                                                                                                                                              |
|                                               | Ethanol: complete                                                                                                                                                                            |
|                                               | Ether: complete                                                                                                                                                                              |
| Log Pow                                       | : -0.24 (Test data)                                                                                                                                                                          |
| Auto-ignition temperature                     | : 465 °C                                                                                                                                                                                     |
| Decomposition temperature                     | : No data available                                                                                                                                                                          |
| Viscosity, kinematic                          | : 0.417 mm <sup>2</sup> /s                                                                                                                                                                   |
| Viscosity, dynamic                            | : 0.32 mPa·s (20 °C)                                                                                                                                                                         |
| Explosion limits                              | : 2 - 12.8 vol %                                                                                                                                                                             |
|                                               | 60 - 310 g/m <sup>3</sup>                                                                                                                                                                    |
|                                               | Lower explosive limit (LEL): 2 vol %                                                                                                                                                         |
|                                               | UEL: 12.8 vol %                                                                                                                                                                              |
| Explosive properties                          | : No data available.                                                                                                                                                                         |
| Oxidizing properties                          | : None                                                                                                                                                                                       |

### 9.2. - OTHER INFORMATION

Minimum ignition energy : 1.15 mJ  
Specific conductivity : 6000000 pS/m (25 °C)  
Saturation concentration : 589 g/m<sup>3</sup>  
VOC content : 100 %  
Other properties : Gas/vapour heavier than air at 20°C. Clear. Highly volatile. Neutral reaction.

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. - REACTIVITY

Violent to explosive reaction with many compounds. Prolonged storage: on exposure to light: release of harmful gases/vapours.

### 10.2. - CHEMICAL STABILITY

Unstable on exposure to light.

### 10.3. - POSSIBILITY OF HAZARDOUS REACTIONS

Reacts with (strong) oxidizers.

### 10.4. - CONDITIONS TO AVOID

Direct sunlight. Extremely high or low temperatures.

### 10.5. - INCOMPATIBLE MATERIALS

Strong acids. Strong bases. Strong oxidizers.

### 10.6. - HAZARDOUS DECOMPOSITION PRODUCTS

Fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 10.1. - INFORMATION ON TOXICOLOGICAL EFFECTS

Likely routes of exposure : Inhalation; Skin and eye contact  
Acute toxicity : Not classified

| Acetone (67-64-1)          |                                                                                           |
|----------------------------|-------------------------------------------------------------------------------------------|
| LD50 oral rat              | 5800 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral)     |
| LD50 dermal rabbit         | 20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal) |
| LD50 inhalation rat (mg/l) | 76 mg/l (Other, 4 h, Rat, Female, Experimental value, Inhalation (vapours))               |
| ATE US (oral)              | 5800 mg/kg body weight                                                                    |
| ATE US (dermal)            | 20000 mg/kg body weight                                                                   |
| ATE US (gases)             | 30000 ppmV/4h                                                                             |
| ATE US (vapors)            | 71 mg/l/4h                                                                                |
| ATE US (vapors)            | 71 mg/l/4h                                                                                |

Skin corrosion/irritation : Not classified  
pH: 7 (10 g/l)  
Serious eye damage/irritation : Causes serious eye irritation.  
pH: 7 (10 g/l)  
Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified  
Based on available data, the classification criteria are not met  
Carcinogenicity : Not classified  
Reproductive toxicity : Not classified  
Based on available data, the classification criteria are not met  
Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.  
Specific target organ toxicity – repeated exposure : Not classified  
Aspiration hazard : Not classified  
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.

### 10.1. - INFORMATION ON TOXICOLOGICAL EFFECTS (CONT)

|                                                  |                                                                                                                                                                                                                                                                                                    |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Symptoms/effects after inhalation                | : EXPOSURE TO HIGH CONCENTRATIONS: Feeling of weakness. Irritation of the respiratory tract. Nausea. Vomiting. Headache. Central nervous system depression. Dizziness. Narcosis. Excited/restless. Drunkenness. Disturbed motor response. Respiratory difficulties. Disturbances of consciousness. |
| Symptoms/effects after skin contact              | : ON CONTINUOUS EXPOSURE/CONTACT: Dry skin. Cracking of the skin.                                                                                                                                                                                                                                  |
| Symptoms/effects after eye contact               | : Irritation of the eye tissue.                                                                                                                                                                                                                                                                    |
| Symptoms/effects after ingestion                 | : Dry/sore throat. Risk of aspiration pneumonia. Symptoms similar to those listed under inhalation. AFTER ABSORPTION OF LARGE QUANTITIES: Irritation of the gastric/intestinal mucosa. Change in the blood composition. Change in urine output. Renal disease. Enlargement/disease of the liver.   |
| Symptoms/effects upon intravenous administration | : Not available.                                                                                                                                                                                                                                                                                   |
| Chronic symptoms                                 | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: Red skin. Skin rash/inflammation. Dry/sore throat. Headache. Nausea. Feeling                                                                                                                                                                            |

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. - TOXICITY

|                   |                                                                                                                                                                                                                                                                        |
|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Ecology - general | : Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008.                                                                                                                                                           |
| Ecology - air     | : Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). |
| Ecology - water   | : Not harmful to crustacea. Not harmful                                                                                                                                                                                                                                |

| Acetone (67-64-1) |                                                                                                                         |
|-------------------|-------------------------------------------------------------------------------------------------------------------------|
| LC50 fish 1       | 5540 mg/l (EU Method C.1, 96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Nominal concentration) |

### 12.2. - PERSISTENCE AND DEGRADABILITY

| Acetone (67-64-1)               |                                                                                                                  |
|---------------------------------|------------------------------------------------------------------------------------------------------------------|
| Persistence and degradability   | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.43 g O <sub>2</sub> /g substance                                                                               |
| Chemical oxygen demand (COD)    | 1.92 g O <sub>2</sub> /g substance                                                                               |
| ThOD                            | 2.2 g O <sub>2</sub> /g substance                                                                                |
| BOD (% of ThOD)                 | 0.872 (20 day(s), Literature study)                                                                              |

### 12.3. - BIOACCUMULATIVE POTENTIAL

| Acetone (67-64-1)             |                              |
|-------------------------------|------------------------------|
| BCF fish 1                    | 0.69 (Pisces)                |
| BCF other aquatic organisms 1 | 3 (BCFWIN, Calculated value) |
| Log Pow                       | -0.24 (Test data)            |
| Bioaccumulative potential     | Not bioaccumulative.         |

### 12.4. - MOBILITY IN SOIL

| Acetone (67-64-1) |                                                       |
|-------------------|-------------------------------------------------------|
| Surface tension   | 0.0237 N/m                                            |
| Ecology - soil    | No (test)data on mobility of the substance available. |

### 12.5. - OTHER ADVERSE EFFECTS

|                   |                                     |
|-------------------|-------------------------------------|
| Other information | : Avoid release to the environment. |
|-------------------|-------------------------------------|

### SECTION 13: DISPOSAL CONSIDERATIONS

#### 13.1. - DISPOSAL METHODS

- Waste disposal recommendations : Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Incinerate under surveillance with energy recovery.
- Additional information : Hazardous waste according to Directive 2008/98/EC, as amended by Regulation (EU) No 1357/2014 and Regulation (EU) No 2017/997.
- Ecology - waste materials : Avoid release to the environment.

### SECTION 14: TRANSPORT INFORMATION

#### DEPARTMENT OF TRANSPORTATION (DOT)

In accordance with DOT

- Transport document description : UN1090 Acetone, 3, II
- UN-No.(DOT) : UN1090
- Proper Shipping Name (DOT) : Acetone
- Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
- Packing group (DOT) : II - Medium Danger
- Hazard labels (DOT) : 3 - Flammable liquid



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
- DOT Packaging Bulk (49 CFR 173.xxx) : 242
- DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1).  
Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal.....  
178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling =  $97 / 1 + a (t_r - t_f)$  Where:  $t_r$  is the maximum mean bulk temperature during transport, and is the temperature in degrees celsius of the liquid during filling.
- DOT Packaging Exceptions (49 CFR 173.xxx) : 150
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
- DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
- DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
- Other information : No supplementary information available.

#### TRANSPORTATION OF DANGEROUS GOODS

- Transport document description : UN1090 ACETONE, 3, II
- UN-No. (TDG) : UN1090
- Proper Shipping Name (Transportation of Dangerous Goods) : ACETONE
- TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
- Packing group : II - Medium Danger
- Explosive Limit and Limited Quantity Index : 1 L
- Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5 L
- Passenger Carrying Ship Index : Forbidden

### SECTION 14: TRANSPORT INFORMATION

#### TRANSPORT BY SEA

|                                       |                                            |
|---------------------------------------|--------------------------------------------|
| Transport document description (IMDG) | : UN 1090 acetone, 3, II                   |
| UN-No. (IMDG)                         | : 1090                                     |
| Proper Shipping Name (IMDG)           | : acetone                                  |
| Class (IMDG)                          | : 3 - Flammable liquids                    |
| Packing group (IMDG)                  | : II - substances presenting medium danger |
| EmS-No. (1)                           | : F-E                                      |
| EmS-No. (2)                           | : S-D                                      |

#### AIR TRANSPORT

|                                       |                          |
|---------------------------------------|--------------------------|
| Transport document description (IATA) | : UN 1090 Acetone, 3, II |
| UN-No. (IATA)                         | : 1090                   |
| Proper Shipping Name (IATA)           | : Acetone                |
| Class (IATA)                          | : 3 - Flammable Liquids  |
| Packing group (IATA)                  | : II - Medium Danger     |

### SECTION 15: REGULATORY INFORMATION

#### 15.1. - US FEDERAL REGULATIONS

| Acetone (67-64-1)                                                         |                                                |
|---------------------------------------------------------------------------|------------------------------------------------|
| Listed on the United States TSCA (Toxic Substances Control Act) Inventory |                                                |
| RQ (Reportable quantity, section 304 of EPA's List of Lists)              | 500 lb                                         |
| SARA Section 311/312 Hazard Classes                                       | Immediate (acute) health hazard<br>Fire hazard |

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

#### 15.2. - INTERNATIONAL REGULATIONS

##### CANADA

| Acetone (67-64-1)                                     |  |
|-------------------------------------------------------|--|
| Listed on the Canadian DSL (Domestic Substances List) |  |

##### EU-REGULATIONS

No additional information available

##### NATIONAL REGULATIONS

| Acetone (67-64-1)                                       |  |
|---------------------------------------------------------|--|
| Listed on the Canadian IDL (Ingredient Disclosure List) |  |

#### 15.3. - US STATE REGULATIONS

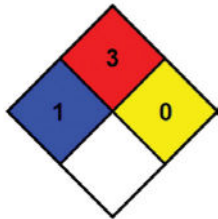
California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

### SECTION 16: OTHER INFORMATION

|                                         |              |
|-----------------------------------------|--------------|
| Revision date                           | : 04/24/2018 |
| Other information                       | : None.      |
| Full text of H-phrases: see section 16: |              |

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

### SECTION 16: OTHER INFORMATION

|                     |                                                                                                                                                                                                                                                                           |                                                                                     |
|---------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| NFPA health hazard  | : 1 - Materials that, under emergency conditions, can cause significant irritation.                                                                                                                                                                                       |  |
| NFPA fire hazard    | : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.                                                                                                                                 |                                                                                     |
| NFPA reactivity     | : 0 - Material that in themselves are normally stable, even under fire conditions.                                                                                                                                                                                        |                                                                                     |
| Hazard Rating       | : 1 Slight Hazard - Irritation or minor reversible injury possible                                                                                                                                                                                                        |                                                                                     |
| Health              | : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC) |                                                                                     |
| Flammability        | : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.                                                                                       |                                                                                     |
| Physical            | : C                                                                                                                                                                                                                                                                       |                                                                                     |
| Personal protection | C - Safety glasses, Gloves, Synthetic apron                                                                                                                                                                                                                               |                                                                                     |
| SDS US LabChem      |                                                                                                                                                                                                                                                                           |                                                                                     |

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