# SAFETY DATA SHEET

According to Regulation (EC) No. 1907/2006 (REACH) Article 31, Annex II as amended 2015/830.

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

### 1.1 Product identifier

**Product name:** Acetone

**Product No.** 3413, 5276, 8002, 8003, 8142, 9254, 2435, 6776, P139, P113

**Synonyms, Trade Names:** 2-Propanone

**Additional identification**

| | |
|---|---|
| **Chemical name:** | Acetone |
| **Chemical formula:** | C3H6O |
| **INDEX No.** | 606-001-00-8 |
| **CAS-No.** | 67-64-1 |
| **EC No.** | 200-662-2 |
| **REACH Registration No.** | 01-2119471330-49-XXXX |

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

**Identified uses:** For Laboratory, Research or Manufacturing Use.
**Uses advised against:** Not determined.

### 1.3 Details of the supplier of the safety data sheet

Avantor Performance Materials Poland S.A.
Sowinskiego 11str., 44-101 Gliwice,
Poland

**Telephone:** 48 32 239-20-00
**Fax:** 48 32 239-23-70

**Contact Person:** Product Information Compliance
**E-mail:** export@avantormaterials.com

E-mail address of person responsible for this SDS: SDS@avantormaterials.com

### 1.4 Emergency telephone number: Chemtrec local numbers

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

The product has been classified according to the legislation in force.

**Classification according to Regulation (EC) No 1272/2008 as amended.**

| | | |
|---|---|---|
| **Physical Hazards** | | |
| Flammable liquids | Category 2 | H225: Highly flammable liquid and vapor. |
| **Health Hazards** | | |
| Serious eye irritation | Category 2 | H319: Causes serious eye irritation. |
| Specific Target Organ Toxicity - Single Exposure | Category 3 | H336: May cause drowsiness or dizziness. |

### 2.2 Label Elements

**Contains:** Acetone

**Signal Word:** Danger

**Hazard Statement(s):**
H225: Highly flammable liquid and vapor.
H319: Causes serious eye irritation.
H336: May cause drowsiness or dizziness.

**Precautionary Statements**

**Prevention:**
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233: Keep container tightly closed.
P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

**Response:**
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P337+P313: If eye irritation persists: Get medical advice/attention.

**Storage:**
P403+P233: Store in a well-ventilated place. Keep container tightly closed.

**Disposal:**
P501: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

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

**2.3 Other hazards** No data available.

## SECTION 3: Composition/information on ingredients

**3.1 Substances**

| Chemical name | Concentration | CAS-No. | EC No. | REACH Registration No. | M-Factor: | Notes |
|---|---|---|---|---|---|---|
| Acetone | 50 - <100% | 67-64-1 | 200-662-2 | 01-2119471330-49-XXXX | No data available. | # |

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.
# This substance has workplace exposure limit(s).

## SECTION 4: First aid measures

**General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.

**4.1 Description of first aid measures**

**Inhalation:** Move to fresh air. Get medical attention if symptoms persist.

| | |
|---|---|
| **Skin Contact:** | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes. |
| **Eye contact:** | Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if irritation persists after washing. |
| **Ingestion:** | Call a physician or poison control center immediately. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. |
| **4.2 Most important symptoms and effects, both acute and delayed:** | Narcotic effect. |

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

| | |
|---|---|
| **Hazards:** | No data available. |
| **Treatment:** | Symptoms may be delayed. Treat symptomatically. |

## SECTION 5: Firefighting measures

| | |
|---|---|
| **General Fire Hazards:** | Flammable liquid and vapor. |
| **5.1 Extinguishing media**<br>**Suitable extinguishing media:** | Water spray, foam, dry powder or carbon dioxide. |
| **Unsuitable extinguishing media:** | Avoid water in straight hose stream; will scatter and spread fire. |
| **5.2 Special hazards arising from the substance or mixture:** | Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations. Heat may cause the containers to explode. |
| **5.3 Advice for firefighters**<br>**Special fire fighting procedures:** | Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk. |
| **Special protective equipment for fire-fighters:** | Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. |

## SECTION 6: Accidental release measures

| | |
|---|---|
| **6.1 Personal precautions, protective equipment and emergency procedures:** | See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep upwind. |
| **6.2 Environmental Precautions:** | Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. |

**6.3 Methods and material for containment and cleaning up:** In case of leakage, eliminate all ignition sources. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use non-sparking tools. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

**6.4 Reference to other sections:** No data available.

## SECTION 7: Handling and storage:

**7.1 Precautions for safe handling:** DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Take precautionary measures against static discharges. Ground and bond container and receiving equipment. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Use only with adequate ventilation. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

**7.2 Conditions for safe storage, including any incompatibilities:** Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a cool, well-ventilated place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

**7.3 Specific end use(s):** No data available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control Parameters

**Occupational Exposure Limits**

| Chemical name | Type | Exposure Limit Values | Source |
|---|---|---|---|
| Acetone | TWA | 500 ppm 1.210 mg/m3 | UK. EH40 Workplace Exposure Limits (WELs) (2007) |
| | STEL | 1.500 ppm 3.620 mg/m3 | UK. EH40 Workplace Exposure Limits (WELs) (2007) |
| | TWA | 500 ppm 1.210 mg/m3 | EU. Indicative Exposure Limit Values in Directives 91/322/EEC, 2000/39/EC, 2006/15/EC, 2009/161/EU, 2017/164/EU (12 2009) |
| | TWA | 500 ppm 1.210 mg/m3 | EU. Scientific Committee on Occupational Exposure Limit Values (SCOELs), European Commission - SCOEL (2014) |
| | STEL | 1.000 ppm 2.420 mg/m3 | EU. Scientific Committee on Occupational Exposure Limit Values (SCOELs), European Commission - SCOEL (2014) |

**DNEL-Values**

| Critical component | Type | Route of Exposure | Health Warnings | Remarks |
|---|---|---|---|---|

**PNEC-Values**

| Critical component | Environmental compartment | PNEC-Values |
|---|---|---|
| Acetone | Sediment (marine water) | 3,04 mg/kg |

| | | |
|---|---|---|
| | Aquatic (freshwater) | 10,6 mg/l |
| | Soil | 29,5 mg/kg |
| | Aquatic (marine water) | 1,06 mg/l |
| | Sediment (freshwater) | 30,4 mg/kg |
| | Sewage treatment plant | 100 mg/l |

**8.2 Exposure controls**

**Appropriate Engineering Controls:** No data available.

**Individual protection measures, such as personal protective equipment**

**General information:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

**Eye/face protection:** Wear safety glasses with side shields (or goggles) and a face shield.

**Skin protection**

**Hand Protection:** Material: Chemical resistant gloves

**Other:** Wear suitable protective clothing and gloves.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Chemical respirator with organic vapor cartridge.

**Hygiene measures:** Provide eyewash station and safety shower. Observe good industrial hygiene practices. Do not eat, drink or smoke when using the product. Wash hands before breaks and immediately after handling the product. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Avoid contact with eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

**Environmental Controls:** No data available.

## SECTION 9: Physical and chemical properties

**9.1 Information on basic physical and chemical properties**

**Appearance**

| | |
|---|---|
| **Physical state:** | Liquid |
| **Form:** | Liquid |
| **Color:** | Colorless |
| **Odor:** | Characteristic |
| **Odor Threshold:** | No data available. |
| **pH:** | 5 - 6 (20 °C) |
| **Freezing point:** | -94,8 - 94,6 °C |
| **Boiling Point:** | 56 °C (101,3 kPa) |
| **Flash Point:** | -20 - -17 °C (Closed Cup) |
| **Evaporation Rate:** | No data available. |
| **Flammability (solid, gas):** | Class IB Flammable Liquid |
| **Flammability limit - upper (%)** | 12,8 %(V) |
| **Flammability limit - lower (%)** | 2,13 - 2,6 %(V) |
| **Vapor pressure:** | 30,9 kPa (25 °C) |

| | |
|---|---|
| | 233 - 240 hPa (20 °C)<br>530 - 560 hPa (40 °C) |
| **Vapor density (air=1):** | 2 |
| **Density:** | 0,79 g/ml (20 °C) |
| **Relative density:** | 0,80 (20 °C) |
| **Solubility(ies)** | |
| **Solubility in Water:** | Miscible |
| **Solubility (other):** | Alcohol: Miscible<br>benzene: Soluble<br>chloroform: Miscible<br>dimethylformamide: Miscible<br>ether: Miscible |
| **Partition coefficient (n-octanol/water):** | -0,24 |
| **Autoignition Temperature:** | 465 °C |
| **Decomposition Temperature:** | No data available. |
| **Viscosity:** | No data available. |
| **Explosive properties:** | No data available. |
| **Oxidizing properties:** | No data available. |

**9.2 Other information**

| | |
|---|---|
| **Molecular weight:** | 58,08 g/mol (C3H6O) |
| **VOC Content:** | EC Directive 2004/42: 790 g/l ~100 % (calculated) |
| **Minimum ignition energy:** | 1,15 mJ |

## SECTION 10: Stability and reactivity

| | |
|---|---|
| **10.1 Reactivity:** | No dangerous reaction known under conditions of normal use. |
| **10.2 Chemical Stability:** | Material is stable under normal conditions. |
| **10.3 Possibility of hazardous reactions:** | Hazardous polymerization does not occur. |
| **10.4 Conditions to avoid:** | Heat, sparks, flames. |
| **10.5 Incompatible Materials:** | Strong acids. Strong oxidizing agents. |
| **10.6 Hazardous Decomposition Products:** | Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors. |

## SECTION 11: Toxicological information

**Information on likely routes of exposure**

| | |
|---|---|
| **Inhalation:** | None known or expected under normal use. |
| **Skin Contact:** | None known or expected under normal use. |
| **Eye contact:** | Causes serious eye irritation. |
| **Ingestion:** | No adverse effects due to ingestion are expected. |

**11.1 Information on toxicological effects**

**Acute toxicity**

**Oral**

**Product:** LD 50 (Rat): 5.800 mg/kg

**Dermal**
**Product:** LD 50 (Rabbit) 20.000 mg/kg

**Inhalation**
**Product:** LC 50 (Rat, 4 h): 50,1 - 76 mg/l

**Repeated dose toxicity**
**Product:** No data available.

**Skin Corrosion/Irritation:**
**Product:** Prolonged or repeated contact may cause irritation.

**Serious Eye Damage/Eye Irritation:**
**Product:** Irritating to eyes.

**Respiratory or Skin Sensitization:**
**Product:** Not a skin sensitizer.

**Germ Cell Mutagenicity**

**In vitro**
**Product:** No mutagenic components identified

**In vivo**
**Product:** No mutagenic components identified

**Carcinogenicity**
**Product:** This substance has no evidence of carcinogenic properties.

**Reproductive toxicity**
**Product:** No components toxic to reproduction

**Specific Target Organ Toxicity - Single Exposure**
**Product:** Narcotic effect.

**Specific Target Organ Toxicity - Repeated Exposure**
**Product:** None known.

**Aspiration Hazard**
**Product:** May be harmful if swallowed and enters airways.

**Other adverse effects:** None known.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Acute toxicity**

**Fish**
**Product:** LC 50 (Fathead minnow (Pimephales promelas), 96 h): 5.490 - 7.030 mg/l Mortality
LC 50 (Bluegill (Lepomis macrochirus), 96 h): 8.300 mg/l Mortality

**Specified substance(s)**

| | |
|---|---|
| Acetone | LC 50 (Fathead minnow (Pimephales promelas), 96 h): 5.490 - 10.700 mg/l<br>LC 50 (Bleak (Alburnus alburnus), 96 h): 10.700 - 11.300 mg/l<br>LC 50 (Western mosquitofish (Gambusia affinis), 96 h): 13.000 mg/l<br>LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 4.740 - 6.330 mg/l<br>LC 50 (Bluegill (Lepomis macrochirus), 96 h): 8.300 mg/l |

**Aquatic Invertebrates**

| | |
|---|---|
| **Product:** | LC 50 (Brine shrimp (Artemia salina), 24 h): 2.100 mg/l Mortality<br>LC 50 (Water flea (Daphnia magna), 48 h): 12.100 mg/l Mortality |

**Specified substance(s)**

| | |
|---|---|
| Acetone | EC 50 (Water flea (Daphnia magna), 48 h): 10.294 - 23.900 mg/l<br>LC 50 (Water flea (Daphnia magna), 48 h): 8.640 - 14.400 mg/l<br>LC 50 (Hydra (Hydra oligactis), 48 h): 13.500 mg/l<br>LC 50 (Great pond snail (Lymnaea stagnalis), 48 h): 7.000 mg/l<br>LC 50 (Water flea (Daphnia cucullata), 48 h): 7.460 - 7.810 mg/l |

**Chronic Toxicity**

**Fish**

| | |
|---|---|
| **Product:** | No data available. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | No data available. |

**Aquatic Invertebrates**

| | |
|---|---|
| **Product:** | No data available. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | NOAEL (Ceriodaphnia dubia, 10 d): 5.184 mg/l<br>EC 50 (Ceriodaphnia dubia, 10 d): 5.908 - 6.928 mg/l<br>EC 50 (Daphnia magna, 10 d): 6.369 - 6.714 mg/l<br>NOAEL (Daphnia magna, 10 d): 3.110 - 5.184 mg/l |

**Toxicity to Aquatic Plants**

| | |
|---|---|
| **Product:** | No data available. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | No data available. |

## 12.2 Persistence and Degradability

**Biodegradation**

| | |
|---|---|
| **Product:** | Expected to be readily biodegradable. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | No data available. |

**BOD/COD Ratio**

| | |
|---|---|
| **Product** | No data available. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | No data available. |

## 12.3 Bioaccumulative potential

| | |
|---|---|
| **Product:** | No data available on bioaccumulation. |

**Specified substance(s)**

| | |
|---|---|
| Acetone | Bioconcentration Factor (BCF): 3 Aquatic sediment<br>Haddock, adult, Bioconcentration Factor (BCF): 0,69 Aquatic sediment |

**12.4 Mobility in soil:** No data available.

**Known or predicted distribution to environmental compartments**

Acetone: No data available.

**12.5 Results of PBT and vPvB assessment:** Not available.

Acetone: No data available.

**12.6 Other adverse effects:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

**12.7 Additional Information:** No data available.

## SECTION 13: Disposal considerations

**13.1 Waste treatment methods**

**General information:** No data available.

**Disposal methods:** Discharge, treatment, or disposal may be subject to national, state, or local laws.

## SECTION 14: Transport information

**ADR**

| | |
|---|---|
| 14.1 UN Number: | UN 1090 |
| 14.2 UN Proper Shipping Name: | ACETONE |
| 14.3 Transport Hazard Class(es) | |
| Class: | 3 |
| Label(s): | 3 |
| Hazard No. (ADR): | 33 |
| Tunnel restriction code: | (D/E) |
| 14.4 Packing Group: | II |
| 14.5 Environmental Hazards: | No |
| 14.6 Special precautions for user: | Not determined. |

**RID**

| | |
|---|---|
| 14.1 UN Number: | UN 1090 |
| 14.2 UN Proper Shipping Name | ACETONE |
| 14.3 Transport Hazard Class(es) | |
| Class: | 3 |
| Label(s): | 3 |
| 14.4 Packing Group: | II |
| 14.5 Environmental Hazards: | No |
| 14.6 Special precautions for user: | Not determined. |

**IMDG**

| | |
|---|---|
| 14.1 UN Number: | UN 1090 |
| 14.2 UN Proper Shipping Name: | ACETONE |
| 14.3 Transport Hazard Class(es) | |
| Class: | 3 |
| Label(s): | 3 |
| EmS No.: | F-E, S-D |
| 14.4 Packing Group: | II |
| 14.5 Environmental Hazards: | No |
| 14.6 Special precautions for user: | Not determined. |

**IATA**

| | |
|---|---|
| 14.1 UN Number: | UN 1090 |
| 14.2 Proper Shipping Name: | Acetone |
| 14.3 Transport Hazard Class(es): | |
| Class: | 3 |
| Label(s): | 3 |
| 14.4 Packing Group: | II |
| 14.5 Environmental Hazards: | No |
| 14.6 Special precautions for user: | Not determined. |

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**: Not applicable

## SECTION 15: Regulatory information

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

**EU Regulations**

**Regulation (EC) No. 2037/2000 Substances that deplete the ozone layer:** none

**Regulation (EC) No. 850/2004 on persistent organic pollutants:** none

**Regulation (EC) No. 649/2012 Import and export of dangerous chemicals:** none

**Regulation (EC) No. 1907/2006, REACH Annex XIV Substances subject to authorisation, as amended:** none

**Regulation (EC) No. 1907/2006 Annex XVII Substances subject to restriction on marketing and use:**

| Chemical name | CAS-No. | Concentration |
|---|---|---|
| Acetone | 67-64-1 | 100% |

**Directive 2004/37/EC on the protection of workers from the risks related to exposure to carcinogens and mutagens at work.:** none

**Directive 92/85/EEC: on the safety and health of pregnant workers and workers who have recently given birth or are breast feeding.:** none

**Directive 2012/18/EU (Seveso III): on the control of major accident hazards involving dangerous substances:**

| Chemical name | CAS-No. | Concentration |
|---|---|---|
| Acetone | 67-64-1 | 100% |

**EU. Regulation No. 166/2006 PRTR (Pollutant Release and Transfer Registry), Annex II: Pollutants:**
none

**Directive 98/24/EC on the protection of workers from the risks related to chemical agents at work:**

| Chemical name | CAS-No. | Concentration |
|---|---|---|
| Acetone | 67-64-1 | 100% |

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out.

**Inventory Status:**

Japan ISHL Listing: On or in compliance with the inventory

## SECTION 16: Other information

**Revision Information:** Not relevant.

**References**

PBT: PBT: persistent, bioaccumulative and toxic substance.
vPvB: vPvB: very persistent and very bioaccumulative substance.

**Key literature references and sources for data:** Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, information from the Toxicology Data Network (TOXNET), European Chemical Agency (ECHA) substance dossiers, IARC Monographs, US National Toxicology Program data, the Agency for Toxic Substances and Disease Registry, other manufacturer's SDSs and other sources, as appropriate.

**Wording of the H-statements in section 2 and 3**

H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

**Training information:** No data available.

**Issue Date:** 04.12.2019
**SDS No.:**

**Disclaimer:**

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