SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Isopropanol 99%
Product Use Description: Alcohol solvent.

Manufacturer or supplier's details
Company: Nexeo Solutions LLC
Address: 3 Waterway Square Place Suite 1000
Woodlands, Tx. 77380
United States of America

Emergency telephone number:
Health North America: 1-855-NEXEO4U (1-855-639-3648)
Health International: 1-855-NEXEO4U (1-855-639-3648)
Transport North America: CHEMTREC 800.424.9300

Additional Information: Responsible Party: Product Safety Group
E-Mail: msds@nexeosolutions.com
MSDS Requests: 1-855-429-2661
MSDS Requests Fax: 1-281-500-2370
Website: www.nexeosolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification
Flammable liquids: Category 2
Eye irritation: Category 2A
Specific target organ toxicity - single exposure: Category 3 (Central nervous system)

GHS Label element
Hazard pictograms: 

Signal word: Danger
Hazard statements: H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
Precautionary statements: Prevention:
P210 Keep away from heat, hot surfaces, sparks, open
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flames and other ignition sources. No smoking.
P233 Keep container tightly closed.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.

Potential Health Effects

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

ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

Emergency Overview

<table>
<thead>
<tr>
<th>WARNING!</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
</tr>
<tr>
<td>Colour</td>
</tr>
<tr>
<td>Odour</td>
</tr>
</tbody>
</table>

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Hazardous components

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical Name</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>Isopropyl alcohol</td>
<td>90 - 100</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>0.1 - 1</td>
</tr>
</tbody>
</table>

Synonyms : Isopropanol Anhydrous/Isopropyl Alcohol ACS
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Grade/Velvasol 425/Value Grade Isopropanol/Isopropyl Alcohol

SECTION 4. FIRST AID MEASURES

General advice: Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.

If inhaled: Consult a physician after significant exposure.
If unconscious place in recovery position and seek medical advice.

In case of skin contact: If on skin, rinse well with water.
If on clothes, remove clothes.

In case of eye contact: Immediately flush eye(s) with plenty of water.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed: Keep respiratory tract clear.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media: Alcohol-resistant foam
Carbon dioxide (CO2)
Dry chemical

Unsuitable extinguishing media: High volume water jet

Specific hazards during firefighting: Do not allow run-off from fire fighting to enter drains or water courses.
No hazardous combustion products are known

Hazardous combustion products: No hazardous combustion products are known

Specific extinguishing methods: Use a water spray to cool fully closed containers.

Further information: Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
For safety reasons in case of fire, cans should be stored separately in closed containments.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus for firefighting if necessary.

**NFPA Flammable and Combustible Liquids Classification:**
Flammable Liquid Class IB

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

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

**Environmental precautions**

- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- If the product contaminates rivers and lakes or drains inform respective authorities.

**Methods and materials for containment and cleaning up**

- Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

---

**SECTION 7. HANDLING AND STORAGE**

**Advice on safe handling**

- Avoid formation of aerosol.
- Do not breathe vapours/dust.
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.
- Take precautionary measures against static discharges.
- Provide sufficient air exchange and/or exhaust in workrooms.
- Open drum carefully as content may be under pres-
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Conditions for safe storage:  
- No smoking.  
- Keep container tightly closed in a dry and well-ventilated place.  
- Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
- Observe label precautions.  
- Electrical installations / working materials must comply with the technological safety standards.  

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Components</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>Isopropyl alcohol</td>
<td>TWA 200 ppm</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 400 ppm</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm 980 mg/m3</td>
<td>NIOSH REL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>ST 500 ppm 1,225 mg/m3</td>
<td>NIOSH REL</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm 980 mg/m3</td>
<td>OSHA Z-1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA 400 ppm 980 mg/m3</td>
<td>OSHA P0</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>STEL 500 ppm 1,225 mg/m3</td>
<td>OSHA P0</td>
<td></td>
</tr>
</tbody>
</table>

Biological occupational exposure limits

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Control parameters</th>
<th>Biological specimen</th>
<th>Sampling time</th>
<th>Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isopropyl alcohol</td>
<td>67-63-0</td>
<td>Acetone</td>
<td>In urine</td>
<td>End of shift at end of work-week</td>
<td>40 mg/l</td>
<td>ACGIH BEI</td>
</tr>
</tbody>
</table>

Personal protective equipment

Respiratory protection:  
- No personal respiratory protective equipment normally required.  
- In the case of vapour formation use a respirator with
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Hand protection
Remarks: The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection:
- Eye wash bottle with pure water
- Tightly fitting safety goggles
- Wear face-shield and protective suit for abnormal processing problems.

Skin and body protection:
- Impervious clothing
- Choose body protection according to the amount and concentration of the dangerous substance at the workplace.

Hygiene measures:
- When using do not eat or drink.
- When using do not smoke.
- Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: liquid
Colour: colourless, clear
Odour: alcohol-like
Odour Threshold: 200 ppm
pH: No data available
Freezing Point (Melting point/freezing point): -88 °C (-126 °F)
Boiling Point (Boiling point/boiling range): 82 °C (180 °F)
Flash point: 12 °C (54 °F)
Evaporation rate: 1.2
n-Butyl Acetate
Flammability (solid, gas): No data available
Burning rate: No data available
Upper explosion limit: 12.7 % (V)
## Lower explosion limit
- 2 % (V)

## Vapour pressure
- 32 mmHg @ 20 °C (68 °F)

## Relative vapour density
- 2 @ 20 °C (68 °F)
  - AIR=1

## Relative density
- 0.79 @ 20 °C (68 °F)
  - Reference substance: (water = 1)

## Density
- 0.79 g/cm³ @ 20 °C (68 °F)

## Bulk density
- No data available

## Solubility(ies)
- **Water solubility**: completely miscible
- **Solubility in other solvents**: No data available

## Partition coefficient: n-octanol/water
- log Pow: 0.05 @ 25 °C (77 °F)

## Auto-ignition temperature
- 399 °C

## Thermal decomposition
- No data available

## Viscosity
- **Viscosity, dynamic**: 2.4 mPa.s @ 20 °C (68 °F)
- **Viscosity, kinematic**: 2.6 mm²/s @ 25 °C (77 °F)

### SECTION 10. STABILITY AND REACTIVITY

**Reactivity**: No dangerous reaction known under conditions of normal use.

**Chemical stability**: Stable under normal conditions.

**Possibility of hazardous reactions**: Vapours may form explosive mixture with air.

**Conditions to avoid**: Heat, flames and sparks.

**Incompatible materials**: Aldehydes
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Chlorine
Ethylene oxide
halogens
isocyanates
Strong acids
strong oxidizing agents

Hazardous decomposition products: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:
Acute oral toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Acute inhalation toxicity: Acute toxicity estimate: > 40 mg/l
Exposure time: 4 h
Test atmosphere: vapour
Method: Calculation method

Acute dermal toxicity: Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

67-63-0:
Acute oral toxicity: LD50 (rat): 5,500 mg/kg
Symptoms: ataxia, Vomiting, Pain, hypothermia, Coma, Dizziness

Acute inhalation toxicity: LC50 (rat, male and female): > 10000 ppm
Exposure time: 6 h
Test atmosphere: vapour
Symptoms: Central nervous system depression
GLP: yes
Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Acute dermal toxicity: LD50 (rabbit): > 12,800 mg/kg

64-17-5:
Acute oral toxicity: 
Assessment: The component/mixture is toxic after
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Acute inhalation toxicity: Assessment: The component/mixture is toxic after short term inhalation.
Remarks: No data available

Acute dermal toxicity: Assessment: The component/mixture is toxic after single contact with skin.
Remarks: No data available

Skin corrosion/irritation

Product:
Remarks: May cause skin irritation in susceptible persons.

Components:
67-63-0:
Species: rabbit
Exposure time: 4 h
Method: In vivo
Result: Not irritating to skin
Remarks: Not irritating to skin

64-17-5:
Result: Irritating to skin.
Remarks: No data available

Serious eye damage/eye irritation

Product:
Remarks: Eye irritation

Components:
67-63-0:
Species: rabbit
Result: Irritating to eyes.
Exposure time: 24 h
Method: In vivo

64-17-5:
Species: rabbit
Result: Eye irritation

Respiratory or skin sensitisation

Components:
67-63-0:
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Test Type: Buehler Test  
Exposure routes: Dermal  
Species: guinea pig  
Assessment: Does not cause respiratory sensitisation.  
Method: OECD Test Guideline 406  
Result: Does not cause skin sensitisation.  
GLP: yes  
Remarks: not sensitising  

64-17-5:  
Test Type: lymph node assay  
Species: mouse  
Method: OECD Test Guideline 429  
GLP: No data available  
Remarks: Did not cause sensitisation on laboratory animals.  

Germ cell mutagenicity  

Components:  
67-63-0:  
Genotoxicity in vitro  
: Test Type: Ames test  
Metabolic activation: with and without metabolic activation  
Result: negative  
 
: Test Type: Mammalian cell gene mutation assay  
Test species: Chinese hamster ovary (CHO)  
Metabolic activation: with and without metabolic activation  
Result: negative  
GLP: yes  

Genotoxicity in vivo  
: Test Type: In vivo micronucleus test  
Test species: mouse (male and female)  
Application Route: Intraperitoneal  
Exposure time: Single  
Dose: 0, 350, 1173, 2500, 3500 mg/kg  
Result: negative  
GLP: yes  

Germ cell mutagenicity-  
Assessment  
: Did not show mutagenic effects in animal experiments.  

64-17-5:  
Genotoxicity in vitro  
: Test Type: Mammalian cell gene mutation assay  
Test species: mouse lymphoma cells  
Metabolic activation: with and without metabolic activation  
Method: OECD Test Guideline 476  
Result: negative  

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GLP: No data available

: Test Type: Ames test
  Test species: Salmonella typhimurium
  Metabolic activation: with and without metabolic activation
  Method: OECD Test Guideline 471
  Result: negative
  GLP: No data available

Genotoxicity in vivo : Test Type: Dominant lethal assay
  Test species: mouse (male)
  Application Route: Oral
  Dose: 10 or 40% ethanol in water
  Method: OECD Test Guideline 478
  Result: Ambiguous
  GLP: No data available

Germ cell mutagenicity-Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity

Components:
67-63-0:
  Species: rat, (male and female)
  Application Route: inhalation (vapour)
  Exposure time: 104 wks
  Activity duration: 6 h
  Dose: 0, 500, 2500, 5000 ppm
  Frequency of Treatment: 5 days/week
  NOAEL: 5,000 ppm

  Method: OECD Test Guideline 451
  Result: did not display carcinogenic properties
  GLP: yes

  Species: mouse, (male and female)
  Application Route: inhalation (vapour)
  Exposure time: 78 wks
  Activity duration: 6 h
  Dose: 0, 500, 2500, 5000 ppm
  Frequency of Treatment: 5 days/week
  NOAEL: 5,000 ppm

  Result: did not display carcinogenic properties
  GLP: yes

  Carcinogenicity - Assessment : Not classifiable as a human carcinogen.
64-17-5:
Carcinogenicity - Assessment: No evidence of carcinogenicity in animal studies.

Reproductive toxicity

Components:
67-63-0:
Effects on fertility: Test Type: Two-generation study
Species: rat, male and female
Dose: 0, 100, 500, 1000 mg/kg bw/d
General Toxicity - Parent: NOAEL: 500 mg/kg body weight
General Toxicity F1: NOAEL: 500 mg/kg body weight
Fertility: NOAEL: 1,000 mg/kg body weight
Symptoms: Maternal effects. Fetotoxicity. Reduced offspring weight gain.
Method: OECD Test Guideline 416
Result: Animal testing did not show any effects on fertility.
GLP: yes

Effects on foetal development: Species: rabbit
Application Route: Oral
Dose: 0, 120, 240, 480 mg/kg bw/day
Duration of Single Treatment: 13 d
General Toxicity Maternal: NOAEL: 240 mg/kg body weight
Developmental Toxicity: NOAEL: 480 mg/kg
Symptoms: Maternal toxicity
Result: No teratogenic effects.
GLP: yes

Reproductive toxicity - Assessment: Animal testing did not show any effects on fertility.
Did not show teratogenic effects in animal experiments.

64-17-5:
Effects on fertility: Test Type: Two-generation study
Species: mouse, male and female
Application Route: oral
Dose: 5, 10 and 15% v/v in water
General Toxicity - Parent: NOAEL: 15 % diet
General Toxicity F1: NOAEL: 10 % diet
Symptoms: reduced litter size Reduced sperm motility in F1 generation
Method: OECD Test Guideline 416
GLP: No data available
Effects on foetal development: Species: rat
Application Route: Inhalation
Dose: 10,000, 16,000 or 20,000 ppm
General Toxicity Maternal: NOAEL: 16,000 ppm
Teratogenicity: NOAEL: > 20,000 ppm
Symptoms: No malformations were observed.
Method: OECD Test Guideline 414
GLP: No data available

Reproductive toxicity - Assessment: No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments.

**STOT - single exposure**

**Product:**
Target Organs: Central nervous system

**Components:**
67-63-0:
Exposure routes: Inhalation
Target Organs: Central nervous system
Assessment: May cause drowsiness or dizziness.

Components:
No data available

**STOT - repeated exposure**

**Product:**
No data available

**Components:**
No data available

**Repeated dose toxicity**

**Components:**
67-63-0:
Species: rat, male and female
NOAEL: > 5000
Application Route: inhalation (vapour)
Exposure time: 13 wks
Number of exposures: 6 h/d, 5 d/wk
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Dose: 0, 100, 500, 1500, 5000 ppm
Method: OECD Test Guideline 413
GLP: yes
Symptoms: Central nervous system depression

Species: mouse, male and female
NOAEL: > 5000
Application Route: inhalation (vapour)
Exposure time: 13 wks
Number of exposures: 6 h/d, 5 d/wk
Dose: 0, 100, 500, 1500, 5000 ppm
Method: OECD Test Guideline 413
GLP: yes
Symptoms: Central nervous system depression

64-17-5:
Species: rat, male and female
NOAEL: 10 ml/kg
Application Route: Oral
Exposure time: 7 or 14 wk
Number of exposures: 2 times/d, 7 d/wk
Dose: 5, 10, 20ml/kg of 16.25% etoh
Method: OECD Test Guideline 408
GLP: yes

Aspiration toxicity

Components:
67-63-0:
May be harmful if swallowed and enters airways.

Further information

Product:
Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., Concentrations substantially above the TLV value may cause narcotic effects., Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:
67-63-0:
Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 9,640 mg/l
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Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): > 10,000 mg/l
Exposure time: 24 h
Test Type: static test

Toxicity to algae: Remarks: No data available

Toxicity to bacteria: Toxicity threshold (Pseudomonas putida): 1,050 mg/l
Exposure time: 16 h

64-17-5:
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): 15,300 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other aquatic invertebrates: EC50 (Ceriodaphnia dubia): 5,012 mg/l
Exposure time: 48 h
Test Type: static test

Toxicity to algae: EC50 (Chlorella vulgaris (Fresh water algae)): 275 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201
GLP: No data available

Persistence and degradability

Components:
67-63-0:
Biodegradability: Result: Readily biodegradable.
Biodegradation: 95 %
Method: OECD Test Guideline 301E

Chemical Oxygen Demand (COD): 0.00209 mg/g

Theoretical Oxygen Demand (ThOD): 0.00240 mg/g

64-17-5:
Biodegradability: Result: Readily biodegradable.
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Bioaccumulative potential

Components:
67-63-0:
Bioaccumulation
Bioconcentration factor (BCF): 3.16
Remarks: Does not significantly accumulate in organisms.

Partition coefficient: n-octanol/water
log Pow: 0.05 (25 °C)

64-17-5:
Bioaccumulation
Remarks: Bioaccumulation is unlikely.

Mobility in soil

Components:
67-63-0:
Stability in soil
Remarks: Adsorbs on soil.

Other adverse effects
No data available

Product:
Regulation  40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods
Waste from residues Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact NEXEO's Environmental Services Group at 800-637-7922.

Contaminated packaging Empty remaining contents. Dispose of as unused product.
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Do not re-use empty containers.
Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

IATA (International Air Transport Association): UN1219, Isopropanol, 3, II

IMDG (International Maritime Dangerous Goods): UN1219, ISOPROPANOL, 3, II,
Flash Point: 12 °C (54 °F)

DOT (Department of Transportation): UN1219, Isopropanol, 3, II

SECTION 15. REGULATORY INFORMATION

OSHA Hazards: Flammable liquid, Moderate eye irritant

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity
This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards: Fire Hazard
Acute Health Hazard

SARA 302: SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489):

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Chemical Name</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>67-63-0</td>
<td>Isopropyl alcohol</td>
<td>100 %</td>
</tr>
<tr>
<td>64-17-5</td>
<td>Ethanol</td>
<td>0.1 %</td>
</tr>
<tr>
<td>71-23-8</td>
<td>n-Propanol</td>
<td>0.015 %</td>
</tr>
</tbody>
</table>

Clean Water Act
This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.
This product does not contain any Hazardous Chemicals listed under the U.S. Clean-Water Act, Section 311, Table 117.3.
This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

Massachusetts Right To Know
67-63-0 Isopropyl alcohol 90 - 100 %

Pennsylvania Right To Know
67-63-0 Isopropyl alcohol 90 - 100 %

New Jersey Right To Know
67-63-0 Isopropyl alcohol 90 - 100 %
64-17-5 Ethanol 0.1 - 1 %

California Prop 65
This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

<table>
<thead>
<tr>
<th>Inventory</th>
<th>Status</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1907/2006 (EU)</td>
<td>n</td>
<td>(Negative listing)</td>
</tr>
<tr>
<td>Switzerland. New notified substances and declared preparations</td>
<td>y</td>
<td>(Positive listing) (The formulation contains substances listed on the Swiss Inventory)</td>
</tr>
<tr>
<td>United States TSCA Inventory</td>
<td>y</td>
<td>(Positive listing) (On TSCA Inventory)</td>
</tr>
<tr>
<td>Canadian Domestic Substances List (DSL)</td>
<td>y</td>
<td>(Positive listing) (All components of this product are on the Canadian DSL.)</td>
</tr>
</tbody>
</table>

MSDS Number: 100000002859

Isopropanol 99%
<table>
<thead>
<tr>
<th>Inventory</th>
<th>Compliance Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia Inventory of Chemical Substances (AICS)</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>New Zealand. Inventory of Chemical Substances</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ENCS - Existing and New Chemical Substances Inventory</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
</tr>
<tr>
<td>Japan. ISHL - Inventory of Chemical Substances (METI)</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
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<td>Korea. Korean Existing Chemicals Inventory (KECI)</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
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<td>Philippines Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
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<td>China. Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>y (positive listing) (On the inventory, or in compliance with the inventory)</td>
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SECTION 16. OTHER INFORMATION

Further information

NFPA:  
- Health: 2
- Flammability: 3
- Instability: 0

HMIS III:  
- Health: 2*
- Flammability: 3
- Physical Hazard: 0

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by NEXEO™ Solutions EHS Product Safety Department (1-855-429-2661) MSDS@nexeosolutions.com.

Legacy MSDS: R0001444

Material number: 16067144, 708297, 153649, 16062664, 16062659, 16062658, 16056239, 16056234, 16056233, 16056232, 16056231, 16056230, 16056236, 16056235, 16056229, 16056228, 16056227, 16061245, 16053485, 16052635, 16052634, 16052633, 16052632, 16052631, 16052630, 16056236, 16056235, 16056229, 16056228, 16056227, 16056226, 16056225, 16056224, 16056223, 16056222, 16056221, 16056220, 16056219, 16056218, 16056217, 16056216, 16056215, 16056214, 16056213, 16056212, 16056211, 16056210, 16056209, 16056208, 16056207, 16056206, 16056205, 16056204, 16056203, 16056202, 16056201, 16056200, 16056199, 16056198, 16056197, 16056196, 16056195, 16056194, 16056193, 16056192, 16056191, 16056190, 16056189, 16056188, 16056187, 16056186, 16056185, 16056184, 16056183, 16056182, 16056181, 16056180, 16056179, 16056178, 16056177, 16056176, 16056175, 16056174, 16056173, 16056172, 16056171, 16056170, 16056169, 16056168, 16056167, 16056166, 16056165, 16056164, 16056163, 16056162, 16056161, 16056160, 16056159, 16056158, 16056157, 16056156, 16056155, 16056154, 16056153, 16056152, 16056151, 16056150, 16056149, 16056148, 16056147, 16056146, 16056145, 16056144, 16056143, 16056142, 16056141, 16056140, 16056139, 16056138, 16056137, 16056136, 16056135, 16056134, 16056133, 16056132, 16056131, 16056130, 16056129, 16056128, 16056127, 16056126, 16056125, 16056124, 16056123, 16056122, 16056121, 16056120, 16056119, 16056118, 16056117, 16056116, 16056115, 16056114, 16056113, 16056112, 16056111, 16056110, 16056109, 16056108, 16056107, 16056106, 16056105, 16056104, 16056103, 16056102, 16056101, 16056100, 16056099, 16056098, 16056097, 16056096, 16056095, 16056094, 16056093, 16056092, 16056091, 16056090, 16056089, 16056088, 16056087, 16056086, 16056085, 16056084, 16056083, 16056082, 16056081, 16056080, 16056079, 16056078, 16056077, 16056076, 16056075, 16056074, 16056073, 16056072, 16056071, 16056070, 16056069, 16056068, 16056067, 16056066, 16056065, 16056064, 16056063, 16056062, 16056061, 16056060, 16056059, 16056058, 16056057, 16056056, 16056055, 16056054, 16056053, 16056052, 16056051, 16056050, 16056049, 16056048, 16056047, 16056046, 16056045, 16056044, 16056043, 16056042, 16056041, 16056040, 16056039, 16056038, 16056037, 16056036, 16056035, 16056034, 16056033, 16056032, 16056031, 16056030, 16056029, 16056028, 16056027, 16056026, 16056025, 16056024, 16056023, 16056022, 16056021, 16056020, 16056019, 16056018, 16056017, 16056016, 16056015, 16056014, 16056013, 16056012, 16056011, 16056010, 16056009, 16056008, 16056007, 16056006, 16056005, 16056004, 16056003, 16056002, 16056001, 16056000.

Key or legend to abbreviations and acronyms used in the safety data sheet

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<tr>
<th>ACGIH</th>
<th>American Conference of Government Industrial Hygienists</th>
<th>LD50</th>
<th>Lethal Dose 50%</th>
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MSDS Number: 100000002859 20 / 21 Isopropanol 99%
### Material Safety Data Sheet

**Isopropanol 99%**

**Version 1.0**

**Revision Date: 08/01/2014**

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tr>
<td>AICS</td>
<td>Australia, Inventory of Chemical Substances</td>
</tr>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
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<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
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<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
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<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
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<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
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<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
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<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
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<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
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<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
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<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
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<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
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<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
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<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
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<tr>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
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<td>NFPA</td>
<td>National Fire Protection Agency</td>
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<td>NTP</td>
<td>National Toxicology Program</td>
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<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
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<tr>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
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<tr>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
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<tr>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
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<td>PEL</td>
<td>Permissible Exposure Limit</td>
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<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
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<tr>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
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<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
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<td>STEL</td>
<td>Short-term Exposure Limit</td>
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<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
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<td>TLV</td>
<td>Threshold Limit Value</td>
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<td>TWA</td>
<td>Time Weighted Average</td>
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<tr>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
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<tr>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
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<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
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