IsoPentyl Alcohol

SECTION 1 : Identification of the substance/mixture and of the supplier

Product name : **IsoPentyl Alcohol**

Manufacturer/Supplier Trade name:

Manufacturer/Supplier Article number: **S25710**

Recommended uses of the product and uses restrictions on use:

Manufacturer Details:

AquaPhoenix Scientific
9 Barnhart Drive, Hanover, PA 17331

Supplier Details:

Fisher Science Education
15 Jet View Drive, Rochester, NY 14624

Emergency telephone number:

Fisher Science Education Emergency Telephone No.: 800-535-5053

SECTION 2 : Hazards identification

Classification of the substance or mixture:

Flammable
Flammable liquids, category 3

Irritant
Acute toxicity (oral, dermal, inhalation), category 4
Eye irritation, category 2A
Skin irritation, category 2
Specific target organ toxicity following single exposure, category 3

Skin Irrit. 2
Eye Irrit. 2A
Stot SE. 3
Flammable liq. 3
AcTox Oral. 4

Signal word :Warning

Hazard statements:
Flammable liquid and vapour
Causes skin irritation
Causes serious eye irritation
Harmful if inhaled
May cause respiratory irritation

Precautionary statements:
If medical advice is needed, have product container or label at hand
Keep out of reach of children
Read label before use
Keep container tightly closed
Wear protective gloves/protective clothing/eye protection/face protection

Keep away from heat/sparks/open flames/hot surfaces. No smoking
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/light/.../equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Avoid breathing dust/fume/gas/mist/vapours/spray
Wash ... thoroughly after handling
Use only outdoors or in a well-ventilated area
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing
Take off contaminated clothing and wash before reuse
In case of fire: Use agents recommended in section 5 for extinction
Call a POISON CENTER or doctor/physician if you feel unwell
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation occurs: Get medical advice/attention
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Specific treatment (see supplemental first aid instructions on this label)
If skin irritation occurs: Get medical advice/attention
If eye irritation persists get medical advice/attention
Store in a well ventilated place. Keep cool
Store in a well ventilated place. Keep container tightly closed
Dispose of contents/container to ...

Other Non-GHS Classification:

WHMIS

B3 

D2B 

NFPA/HMIS

NFPA SCALE (0-4)

HMIS RATINGS (0-4)

SECTION 3 : Composition/information on ingredients

Ingredients:		
CAS 123-51-3	3-Methylbutan-1-ol	100 %
		Percentages are by weight

SECTION 4 : First aid measures

Description of first aid measures

After inhalation: Loosen clothing as necessary and position individual in a comfortable position.Move exposed to fresh air. Give artificial respiration if necessary. If breathing is difficult give oxygen.Consult a physician.

After skin contact: Wash hands and exposed skin with soap and plenty of water. Consult a physician.

After eye contact: Protect unexposed eye. Rinse or flush exposed eye gently using water for 15-20 minutes. Remove contact lenses while rinsing.Consult a physician.

After swallowing: Rinse mouth thoroughly. Do not induce vomiting. Never give anything by mouth to an unconscious person.Consult a physician.Call Poison Control Center.

Most important symptoms and effects, both acute and delayed:

;Prolonged or repeated exposure can cause: Nausea, Headache, or Vomiting. To the best of our knowledge the chemical, physical, and toxicological properties have not been thoroughly investigated.

Indication of any immediate medical attention and special treatment needed:

If seeking medical attention provide SDS document to physician. Physician should treat symptomatically.

SECTION 5 : Firefighting measures

Extinguishing media

Suitable extinguishing agents: For small incipient fires use media such as alcohol foam, dry chemical, or carbon dioxide. For large fires apply water from as far as possible. Use very large quantities of flooding water applied as a mist or spray. Solid streams of water may be ineffective.Cool all affected containers with flooding quantities of water.Use water spray to cool unopened containers.

For safety reasons unsuitable extinguishing agents: None.

Special hazards arising from the substance or mixture:

Thermal decomposition can lead to release of irritating gases and vapors. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.Containers may explode when heated. Vapors may travel to the source of ignition and flash back.

Advice for firefighters:

Protective equipment: Wear protective eyeware, gloves, and clothing. Refer to Section 8.

Additional information (precautions): Avoid inhaling gases, fumes, dust, mist, vapor, and aerosols. Avoid contact with skin, eyes, and clothing.Remove all sources of ignition.

SECTION 6 : Accidental release measures

Personal precautions, protective equipment and emergency procedures:

Ensure adequate ventilation.Ensure that air-handling systems are operational.Use spark-proof tools and explosion-proof equipment.Use under a fume hood.

Environmental precautions:

Should not be released into environment.Prevent from reaching drains, sewer, or waterway.

Methods and material for containment and cleaning up:

Wear protective eyeware, gloves, and clothing. Refer to Section 8.If necessary use trained response staff or contractor. Collect with an electrically protected vacuum cleaner or by wet-brushing. Place in container0 for disposal according to local regulations. Refer to Section 13.

Reference to other sections:

SECTION 7 : Handling and storage

Precautions for safe handling:

Avoid contact with skin, eyes, and clothing.Follow good hygiene procedures when handling chemical materials. Refer to Section 8.Follow proper disposal methods. Refer to Section 13.Wash hands after handling. Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and safety practice.Do not eat, drink, smoke, or use personal products when handling chemical substances.Take measures to prevent the build up of electrostatic charge.Use spark-proof tools and explosion-proof equipment.Use under a fume hood.

Conditions for safe storage, including any incompatibilities:

Store in a cool location. Keep away from open flames, hot surfaces, and sources of ignition. Keep away from food and beverages.Protect from freezing and physical damage.Provide ventilation for containers. Keep container tightly sealed.Store away from incompatible materials.

SECTION 8 : Exposure controls/personal protection



Control Parameters: 123-51-3, 3-Methylbutan-1-ol, TWA 100 ppm USA. ACGIH TLV
123-51-3, 3-Methylbutan-1-ol, TWA 100 ppm 360 mg/m3 USA. NIOSH

Appropriate Engineering controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of use or handling. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor and mists below the applicable workplace exposure limits (Occupational Exposure Limits-OELs) indicated above.

Respiratory protection: Use under a fume hood.Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls.When necessary use NIOSH approved breathing equipment.

Protection of skin: Select glove material impermeable and resistant to the substance.Select glove material based on rates of diffusion and degradation. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Use proper glove removal technique without touching outer surface. Avoid skin contact with used gloves.Wear protective clothing.

Eye protection: Wear equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).Safety glasses or goggles are appropriate eye protection.

General hygienic measures: Perform routine housekeeping. Wash hands before breaks and at the end of work. Avoid contact with skin, eyes, and clothing.Before wearing wash contaminated clothing.

SECTION 9 : Physical and chemical properties

Appearance (physical state,color):	Clear colorless liquid	**Explosion limit lower**: **Explosion limit upper**:	1.2 % 8 %
Odor:	Characteristic	**Vapor pressure**:	4hPa @ 20C 3hPa (2 mmHg) at 20 C
Odor threshold:	Not Determined	**Vapor density**:	3.04 - (Air = 1.0)
pH-value:	7 25g/L	**Relative density**:	0.809 g/cm3 at 25 °C

Melting/Freezing point:	-117 °C	**Solubilities**:	Soluble
Boiling point/Boiling range:	130 °C	**Partition coefficient (n-octanol/water)**:	log Pow: 1.28
Flash point (closed cup):	43 °C	**Auto/Self-ignition temperature**:	365°C
Evaporation rate:	Not Determined	**Decomposition temperature**:	Not Determined
Flammability (solid,gaseous):	Flammable	**Viscosity**:	a. Kinematic:Not Determined b. Dynamic: Not Determined
Density: Not Determined			

SECTION 10 : Stability and reactivity

Reactivity: Nonreactive under normal conditions.
Chemical stability: Test for peroxide formation before distillation or evaporation. Test for peroxide formation or discard after 1 year.Stable under recommended storage conditions.
Possible hazardous reactions: None under normal processing.
Conditions to avoid: Incompatible materials.Heat, flames, and sparks.
Incompatible materials: Strong oxidizing agents, Acid chlorides, Acid anhydrides, Reducing agents,Fluorine,
Hazardous decomposition products: Carbon oxides

SECTION 11 : Toxicological information

Acute Toxicity:		
Inhalation:	123-51-3	LC50 Inhalation - Rat - male and female - 6 h - > 14 mg/l
Dermal:	123-51-3	LD50 Dermal - Rabbit - > 3,000 mg/kg
Oral:	123-51-3	LD50 orl-rat: 1300mg/kg
Chronic Toxicity: No additional information.		
Corrosion Irritation:		
Dermal:	123-51-3	Skin - Rabbit Result: Skin irritation 2
Ocular:	123-51-3	Eyes - Rabbit Result: Eye irritation 2A
Sensitization:		No additional information.
Single Target Organ (STOT):		Specific target organ toxicity - single exposure (Category 3), Respiratory system
Numerical Measures:		No additional information.
Carcinogenicity:		No additional information.
Mutagenicity:		No additional information.
Reproductive Toxicity:		No additional information.

SECTION 12 : Ecological information

Ecotoxicity

Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 260 mg/l - 48 h: 123-51-3

Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - 490 mg/l - 72 h: 123-51-3

Persistence and degradability: 123-51-3: Biodegradability Result: > 70 % - Readily biodegradable.123-51-3: Mobility: 1.28
Bioaccumulative potential:
Mobility in soil:
Other adverse effects:

SECTION 13 : Disposal considerations

Waste disposal recommendations:

Contact a licensed professional waste disposal service to dispose of this material.Dispose of empty containers as unused product.Product or containers must not be disposed with household garbage. It is the responsibility of the waste generator to properly characterize all waste materials according to applicable regulatory entities (US 40CFR262.11). Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations. Ensure complete and accurate classification.Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable.

SECTION 14 : Transport information

UN-Number

1105

UN proper shipping name

Pentanols

Transport hazard class(es)

Class:
3 Flammable liquids

Packing group:III
Environmental hazard:
Transport in bulk:
Special precautions for user:

SECTION 15 : Regulatory information

United States (USA)

SARA Section 311/312 (Specific toxic chemical listings):

Acute, Chronic, Fire

SARA Section 313 (Specific toxic chemical listings):

None of the ingredients is listed

RCRA (hazardous waste code):

None of the ingredients is listed

TSCA (Toxic Substances Control Act):

All ingredients are listed.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act):

None of the ingredients is listed

Proposition 65 (California):

Chemicals known to cause cancer:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed

Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed

Chemicals known to cause developmental toxicity:

None of the ingredients is listed

Canada

Canadian Domestic Substances List (DSL):

All ingredients are listed.

Canadian NPRI Ingredient Disclosure list (limit 0.1%):

None of the ingredients is listed

Canadian NPRI Ingredient Disclosure list (limit 1%):

None of the ingredients is listed

SECTION 16 : Other information

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.Note:. The responsibility to provide a safe workplace remains with the user.The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment.The information contained herein is, to the best of our knowledge and belief, accurate.However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material.It is the responsibility of the user to comply with all applicable laws and regulations applicable to this material.

GHS Full Text Phrases:

Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods
PNEC: Predicted No-Effect Concentration (REACH)
CFR: Code of Federal Regulations (USA)
SARA: Superfund Amendments and Reauthorization Act (USA)
RCRA: Resource Conservation and Recovery Act (USA)
TSCA: Toxic Substances Control Act (USA)
NPRI: National Pollutant Release Inventory (Canada)
DOT: US Department of Transportation
IATA: International Air Transport Association
GHS: Globally Harmonized System of Classification and Labelling of Chemicals
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
WHMIS: Workplace Hazardous Materials Information System (Canada)

DNEL: Derived No-Effect Level (REACH)

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