

Material Safety Data Sheet

Battery 100 Fast Dry



1. Product and company identification

Product name : Battery 100 Fast Dry
Material uses : Industrial applications: Flux.
Manufacturer : In Canada:
AIM
9100 Henri Bourassa East
Montreal, QC
H1E 2S4
(514) 494-2000

In the United States:
AIM
25 Kenney Drive
Cranston, RI 02920
(800) CALL-AIM

Validation date : 8/6/2015
Print date : 8/6/2015
In case of emergency : INFOTRAC
North America: (800) 535-5053
International: (352) 323-3500

Product type : Liquid.

2. Hazards identification

Emergency overview

Physical state : Liquid.
Signal word : DANGER!
Hazard statements : CAUSES RESPIRATORY TRACT, EYE AND SKIN BURNS. MAY BE HARMFUL IF SWALLOWED. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.
Precautionary measures : Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not get in eyes. Do not get on skin. Do not eat, drink or smoke when using this product. Keep container tightly closed. Wash thoroughly after handling.
OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Potential acute health effects

Inhalation : This product may be hazardous in case of inhalation
Ingestion : This product may be hazardous in case of ingestion
Skin : This product may irritate eyes and skin upon contact.
Eyes : This product may be hazardous in case of eye contact.

Potential chronic health effects

Chronic effects : Contains material that can cause target organ damage.
Carcinogenicity : No known significant effects or critical hazards.
Mutagenicity : No known significant effects or critical hazards.
Teratogenicity : No known significant effects or critical hazards.
Developmental effects : No known significant effects or critical hazards.
Fertility effects : No known significant effects or critical hazards.

2. Hazards identification

Target organs : Contains material which causes damage to the following organs: the nervous system, the reproductive system, eye, lens or cornea, thyroid.
 Contains material which may cause damage to the following organs: kidneys, lungs, peripheral nervous system, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS).

Over-exposure signs/symptoms

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing

Ingestion : Adverse symptoms may include the following:
 stomach pains

Skin : Adverse symptoms may include the following:
 pain or irritation
 redness
 blistering may occur

Eyes : Adverse symptoms may include the following:
 pain
 watering
 redness

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

3. Composition/information on ingredients

United States

Name	CAS number	%
2-methylpropan-1-ol	78-83-1	40 - 50
rosin	8050-09-7	20 - 30
butanone	78-93-3	0.1 - 10
salicylic acid	69-72-7	0.1 - 10
4-oxovaleric acid	123-76-2	0.1 - 10
2-methylpentane-2,4-diol	107-41-5	0.1 - 10
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	25322-68-3	0.1 - 10
methanol	67-56-1	0.1 - 10

Canada

Name	CAS number	%
2-methylpropan-1-ol	78-83-1	40 - 50
rosin	8050-09-7	20 - 30
butanone	78-93-3	0.1 - 10
salicylic acid	69-72-7	0.1 - 10
4-oxovaleric acid	123-76-2	0.1 - 10
2-methylpentane-2,4-diol	107-41-5	0.1 - 10
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	25322-68-3	0.1 - 10
methanol	67-56-1	0.1 - 10

Mexico

Name	CAS number	UN number	%	IDLH	Classification			
					H	F	R	Special

3. Composition/information on ingredients

butanone	78-93-3	UN1993	0.1 - 10	3000 ppm	2	3	0	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	25322-68-3	Not available.	0.1 - 10	-	1	1	0	-
4-oxovaleric acid	123-76-2	Not available.	0.1 - 10	-	3	1	0	-
2-methylpentane-2,4-diol	107-41-5	Not available.	0.1 - 10	-	2	1	0	-
methanol	67-56-1	UN1993	0.1 - 10	6000 ppm	2	3	0	-
2-methylpropan-1-ol	78-83-1	UN1993	40 - 50	1600 ppm	0	3	0	-

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

4. First aid measures

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
- Skin contact** : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
- Inhalation** : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
- Ingestion** : Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
- Notes to physician** : No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

5. Fire-fighting measures

- Flammability of the product** : In a fire or if heated, a pressure increase will occur and the container may burst.
- Extinguishing media**
 - Suitable** : Use an extinguishing agent suitable for the surrounding fire.
 - Not suitable** : None known.
- Special exposure hazards** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Methods for cleaning up

Small spill : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and storage

Handling : Wear suitable protective clothing. Use with adequate ventilation. When using do not eat, drink or smoke. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

Storage : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure controls/personal protection

United States

Ingredient	Exposure limits
2-methylpropan-1-ol	<p>ACGIH TLV (United States, 3/2015). TWA: 50 ppm 8 hours. TWA: 152 mg/m³ 8 hours.</p> <p>OSHA PEL 1989 (United States, 3/1989). TWA: 50 ppm 8 hours. TWA: 150 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 50 ppm 10 hours. TWA: 150 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours.</p>
butanone	<p>ACGIH (United States, 0/1994). TWA: 590 mg/m³ STEL: 885 mg/m³</p> <p>OSHA (United States, 0/1989). TWA: 590 mg/m³ STEL: 885 mg/m³</p>

8. Exposure controls/personal protection

	<p>OSHA PEL 1989 (United States, 3/1989). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes.</p> <p>ACGIH TLV (United States, 3/2015). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes.</p> <p>NIOSH REL (United States, 10/2013). TWA: 200 ppm 10 hours. TWA: 590 mg/m³ 10 hours. STEL: 300 ppm 15 minutes. STEL: 885 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 2/2013). TWA: 200 ppm 8 hours. TWA: 590 mg/m³ 8 hours.</p>
2-methylpentane-2,4-diol	<p>ACGIH (United States, 0/1994). CEIL: 25 ppm TWA: 25 mg/m³ CEIL: 121 mg/m³</p> <p>NIOSH (United States, 0/1994). TWA: 125 ppm CEIL: 25 ppm TWA: 123 mg/m³ STEL: 123 mg/m³ CEIL: 125 mg/m³</p> <p>OSHA (United States, 0/1989). TWA: 125 ppm CEIL: 25 ppm TWA: 100 mg/m³ CEIL: 125 mg/m³</p> <p>ACGIH TLV (United States, 3/2015). C: 25 ppm C: 121 mg/m³</p> <p>OSHA PEL 1989 (United States, 3/1989). CEIL: 25 ppm CEIL: 125 mg/m³</p> <p>NIOSH REL (United States, 10/2013). CEIL: 25 ppm CEIL: 125 mg/m³</p>
<p>Poly(oxy-1,2-ethanediyl),α-hydro-ω-hydroxy-Ethane-1,2-diol, ethoxylated</p> <p>methanol</p>	<p>AIHA WEEL (United States, 10/2011). TWA: 10 mg/m³ 8 hours. Form: Aerosol</p> <p>ACGIH (United States, 0/1994). Absorbed through skin. TWA: 262 mg/m³ STEL: 328 mg/m³</p> <p>OSHA (United States, 0/1989). Absorbed through skin. TWA: 260 mg/m³ STEL: 325 mg/m³</p> <p>ACGIH TLV (United States, 3/2015). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 262 mg/m³ 8 hours. STEL: 250 ppm 15 minutes. STEL: 328 mg/m³ 15 minutes.</p> <p>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 200 ppm 8 hours. TWA: 260 mg/m³ 8 hours.</p>

8. Exposure controls/personal protection

STEL: 250 ppm 15 minutes.
 STEL: 325 mg/m³ 15 minutes.
NIOSH REL (United States, 10/2013). Absorbed through skin.
 TWA: 200 ppm 10 hours.
 TWA: 260 mg/m³ 10 hours.
 STEL: 250 ppm 15 minutes.
 STEL: 325 mg/m³ 15 minutes.
OSHA PEL (United States, 2/2013).
 TWA: 200 ppm 8 hours.
 TWA: 260 mg/m³ 8 hours.

Canada

<u>Occupational exposure limits</u>		<u>TWA (8 hours)</u>			<u>STEL (15 mins)</u>			<u>Ceiling</u>			
<u>Ingredient</u>	<u>List name</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>ppm</u>	<u>mg/m³</u>	<u>Other</u>	<u>Notations</u>
2-methylpropan-1-ol	US ACGIH 3/2015	50	152	-	-	-	-	-	-	-	
	AB 4/2009	50	152	-	-	-	-	-	-	-	[3]
	BC 2/2015	50	-	-	-	-	-	-	-	-	
	ON 7/2015	50	152	-	-	-	-	-	-	-	
	QC 1/2014	50	152	-	-	-	-	-	-	-	
rosin, formaldehyde butanone	QC 1/2014	-	0.1	-	-	-	-	-	-	-	[3]
	US ACGIH 3/2015	200	590	-	300	885	-	-	-	-	
	AB 4/2009	200	590	-	300	885	-	-	-	-	
	BC 2/2015	50	-	-	100	-	-	-	-	-	
	ON 7/2015	200	590	-	300	885	-	-	-	-	
2-methylpentane-2,4-diol	QC 1/2014	50	150	-	100	300	-	-	-	-	
	US ACGIH 3/2015	-	-	-	-	-	-	25	121	-	
	AB 4/2009	-	-	-	-	-	-	25	121	-	[3]
	BC 2/2015	-	-	-	-	-	-	25	-	-	
	ON 7/2015	-	-	-	-	-	-	25	121	-	
methanol	QC 1/2014	-	-	-	25	121	-	-	-	-	
	US ACGIH 3/2015	200	262	-	250	328	-	-	-	-	[1]
	AB 4/2009	200	262	-	250	328	-	-	-	-	[1]
	BC 2/2015	200	-	-	250	-	-	-	-	-	[1]
	ON 7/2015	200	262	-	250	328	-	-	-	-	[1]
Poly(oxy-1,2-ethanediyl), α-hydro-ω-hydroxy- Ethane-1,2-diol, ethoxylated	QC 1/2014	200	262	-	250	328	-	-	-	-	[1]
	US AIHA 10/2011	-	10	-	-	-	-	-	-	-	[a]

[1]Absorbed through skin. [3]Skin sensitization

Form: [a]Aerosol

Mexico

Occupational exposure limits

<u>Ingredient</u>	<u>Exposure limits</u>
2-methylpropan-1-ol	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 50 ppm 8 hours. LMPE-PPT: 150 mg/m ³ 8 hours. LMPE-CT: 225 mg/m ³ 15 minutes. LMPE-CT: 75 ppm 15 minutes.
butanone	NOM-010-STPS (Mexico, 9/2000). LMPE-PPT: 200 ppm 8 hours. LMPE-PPT: 590 mg/m ³ 8 hours. LMPE-CT: 885 mg/m ³ 15 minutes. LMPE-CT: 300 ppm 15 minutes.
2-methylpentane-2,4-diol	NOM-010-STPS (Mexico, 9/2000). LMPE-Pico: 25 ppm LMPE-Pico: 125 mg/m ³
methanol	NOM-010-STPS (Mexico, 9/2000). Absorbed through skin. LMPE-PPT: 200 ppm 8 hours. LMPE-PPT: 260 mg/m ³ 8 hours.

8. Exposure controls/personal protection

LMPE-CT: 310 mg/m³ 15 minutes.
LMPE-CT: 250 ppm 15 minutes.

Consult local authorities for acceptable exposure limits.

- Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.
- Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.
- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and chemical properties

- Physical state** : Liquid.
- Dispersibility properties** : Not dispersible in the following materials: cold water, hot water, methanol and diethyl ether.

10. Stability and reactivity

- Chemical stability** : The product is stable.
- Conditions to avoid** : No specific data.
- Incompatible materials** : No specific data.
- Hazardous decomposition products** : Under normal conditions of storage and use, hazardous decomposition products should not be produced.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

11. Toxicological information

United States

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	
2-methylpropan-1-ol	LC50 Inhalation Vapor	Rat	19200 mg/m ³	4 hours	
	LD50 Dermal	Rabbit	3400 mg/kg	-	
	LD50 Oral	Rat	2460 mg/kg	-	
rosin	LD50 Oral	Rat	7600 mg/kg	-	
	butanone	LD50 Dermal	Rabbit	6480 mg/kg	-
		LD50 Dermal	Rabbit	6480 mg/kg	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	LD50 Oral	Mouse	4050 mg/kg	-	
	LD50 Oral	Rat	2737 mg/kg	-	
	LD50 Oral	Rat	2737 mg/kg	-	
	LD50 Oral	Rat	28000 mg/kg	-	
	4-oxovaleric acid	LD50 Dermal	Rabbit	>5000 mg/kg	-
2-methylpentane-2,4-diol	LD50 Oral	Rat	1850 mg/kg	-	
	LD50 Oral	Rat	1850 mg/kg	-	
	LD50 Oral	Guinea pig	2800 mg/kg	-	
methanol	LD50 Oral	Rabbit	3200 mg/kg	-	
	LD50 Oral	Rat	3700 mg/kg	-	
	LD50 Oral	Rat	3700 mg/kg	-	
	LC50 Inhalation Gas.	Rat	3700 mg/kg	-	
	LC50 Inhalation Gas.	Rat	145000 ppm	1 hours	
	LD50 Dermal	Rat	64000 ppm	4 hours	
	LD50 Dermal	Rabbit	15800 mg/kg	-	
	LD50 Dermal	Rabbit	15800 mg/kg	-	
LD50 Oral	Mouse	7300 mg/kg	-		
LD50 Oral	Rabbit	14200 mg/kg	-		
LD50 Oral	Rat	5600 mg/kg	-		
LD50 Oral	Rat	6200 mg/kg	-		
LDLo Dermal	Monkey	393 mg/kg	-		
LDLo Oral	Dog	7500 mg/kg	-		

Conclusion/Summary : Not available.

Chronic toxicity

Conclusion/Summary : Not available.

Irritation/Corrosion

11. Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
butanone	Skin - Mild irritant	Rabbit	-	24 hours 14 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
Poly(oxy-1,2-ethanediyl), α -hydro- ω -hydroxy- Ethane-1,2-diol, ethoxylated	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Mild irritant	Rabbit	-	500 milligrams	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
4-oxovaleric acid	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
2-methylpentane-2,4-diol	Skin - Mild irritant	Rabbit	-	465 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 milligrams	-
methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-

Conclusion/Summary : Not available.

Sensitizer

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Classification

Product/ingredient name	OSHA	IARC	NTP	ACGIH	EPA	NIOSH
butanone	-	-	-	-	-	None.
2-methylpentane-2,4-diol	-	-	-	-	-	None.
methanol	None.	-	-	-	-	None.

Mutagenicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Canada

Acute toxicity