

# Material Safety Data Sheet



Date of issue 17 May 2011  
Version 13

## 1. Product and company identification

Product name : ACRYLIC LACQUER  
Code : ACR-100  
Supplier : PPG Industries, Inc.  
One PPG Place,  
Pittsburgh, PA 15272  
Emergency telephone number : (412) 434-4515 (U.S.)  
(514) 645-1320 (Canada)  
01-800-00-21-400 (Mexico)  
Technical Phone Number : 1-800-647-6050

## 2. Hazards identification

Emergency overview : DANGER!  
FLAMMABLE LIQUID AND VAPOR. CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY BE HARMFUL IF INHALED OR SWALLOWED. ASPIRATION HAZARD. CAN ENTER LUNGS AND CAUSE DAMAGE. PROLONGED OR REPEATED CONTACT MAY DRY SKIN AND CAUSE IRRITATION. CONTAINS MATERIAL THAT CAN CAUSE TARGET ORGAN DAMAGE.  
Keep away from flames, such as a pilot light, and any object that sparks, such as an electric motor. Keep away from heat. Do not smoke. Do not swallow. Avoid breathing vapor or mist. Avoid contact with eyes, skin and clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

### Potential acute health effects

Inhalation : May be harmful if inhaled. Irritating to respiratory system. Can irritate eyes, nose, mouth and throat. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.  
Ingestion : May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.  
Skin : Irritating to skin.  
Eyes : Irritating to eyes.

### Over-exposure signs/symptoms

Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone.

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.

This Material Safety Data Sheet has been prepared in accordance with Canada's Workplace Hazardous Materials Information System (WHMIS) and the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See toxicological information (Section 11)

### 3 . Composition/information on ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Butanone	78-93-3	10 - 30
Toluene	108-88-3	10 - 30
BBP	85-68-7	5 - 10
4-methylpentan-2-one	108-10-1	3 - 7
Acetic acid, C6-8-branched alkyl esters	90438-79-2	1 - 5
Cellulose nitrate	9004-70-0	0.5 - 1.5

**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

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Material Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

- Eye contact** : Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
- Skin contact** : Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners.
- Inhalation** : Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.
- Ingestion** : If swallowed, seek medical advice immediately and show this container or label. Keep person warm and at rest. Do not induce vomiting.
- Notes to physician** : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

### 5 . Fire-fighting measures

- Flammability of the product** : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

#### Extinguishing media

- Suitable** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Not suitable** : Do not use water jet.
- 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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:  
carbon oxides  
nitrogen oxides
- 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).



## 6 . Accidental release measures

- 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). Water polluting material. May be harmful to the environment if released in large quantities.
- Large spill** : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Use spark-proof tools and explosion-proof equipment. 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.
- Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## 7 . Handling and storage

- Handling** : Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Do not swallow. Do not get in eyes or on skin or clothing. Avoid breathing vapor or mist. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** : Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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

Name	Result	ACGIH	OSHA	Ontario	Mexico	PPG
Butanone	TWA	200 ppm	200 ppm	200 ppm	200 ppm	Not established
	STEL	300 ppm	Not established	300 ppm	300 ppm	Not established
Toluene	TWA	20 ppm	200 ppm Z	20 ppm	50 ppm S	Not established
	STEL	Not established	500 ppm Z A 300 ppm Z C	Not established	Not established	Not established
4-methylpentan-2-one	TWA	20 ppm	100 ppm	50 ppm	50 ppm	Not established
	STEL	75 ppm	Not established	75 ppm	75 ppm	Not established



## 8 . Exposure controls/personal protection

### Key to abbreviations

A	= Acceptable Maximum Peak	S	= Potential skin absorption
ACGIH	= American Conference of Governmental Industrial Hygienists.	SR	= Respiratory sensitization
C	= Ceiling Limit	SS	= Skin sensitization
F	= Fume	STEL	= Short term Exposure limit values
IPEL	= Internal Permissible Exposure Limit	TD	= Total dust
OSHA	= Occupational Safety and Health Administration.	TLV	= Threshold Limit Value
R	= Respirable	TWA	= Time Weighted Average
Z	= OSHA 29CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances		

### 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.
- Engineering measures** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
- 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

- Eyes** : Safety glasses with side shields.
- 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.
- Gloves** : For prolonged or repeated handling, use the following type of gloves:  
  
*Recommended: fluor rubber, foil*
- Respiratory** : If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. 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.
- 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.
- Flash point** : Closed cup: -2.78°C (27°F)
- Explosion limits** : Lower: 1.6%
- Color** : Not available.
- Odor** : Not available.
- pH** : Not available.
- Boiling/condensation point** : 37.22°C (99°F)
- Melting/freezing point** : Not available.
- Specific gravity** : 0.91
- Density ( lbs / gal )** : 7.59
- Vapor pressure** : 6.1 kPa (45.5 mm Hg) [20°C]



## 9 . Physical and chemical properties

Vapor density	: Not available.
Volatility	: 76% (v/v), 69.49% (w/w)
Evaporation rate	: 439 (butyl acetate = 1)
Partition coefficient: n-octanol/water	: Not available.
% Solid. (w/w)	: 30.51

## 10 . Stability and reactivity

Stability	: Stable under recommended storage and handling conditions (see section 7).
Conditions to avoid	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.
Materials to avoid	: Reactive or incompatible with the following materials: oxidizing materials, strong acids, strong alkalis
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization	: Under normal conditions of storage and use, hazardous polymerization will not occur.

## 11 . Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Butanone	LD50 Oral	Rat	2737 mg/kg	-
	LD50 Dermal	Rabbit	6480 mg/kg	-
	LC50 Inhalation Vapor	Rat	11243 ppm	4 hours
Toluene	LD50 Oral	Rat	636 mg/kg	-
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LC50 Inhalation Vapor	Rat	49 g/m3	4 hours
BBP	LD50 Oral	Rat	2.33 g/kg	-
	LD50 Dermal	Rabbit	>10 g/kg	-
	LC50 Inhalation Vapor	Rat	>6700 mg/m3	4 hours
4-methylpentan-2-one	LD50 Oral	Rat	2.08 g/kg	-
	LC50 Inhalation Vapor	Rat	32772 mg/m3	4 hours
	LD50 Oral	Rat	>5 g/kg	-

**Conclusion/Summary** : Not available.

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Defatting irritant

: Prolonged or repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

### Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS).  
Contains material which may cause damage to the following organs: blood, kidneys, lungs, the reproductive system, liver, heart, peripheral nervous system, upper respiratory tract, skin, eye, lens or cornea, nose/sinuses.

### Carcinogenicity

**Carcinogenicity** : Contains material which may cause cancer, based on animal data. Risk of cancer depends on duration and level of exposure.

### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Toluene	A4	3	-	-	-	-
BBP	-	3	-	-	-	-
4-methylpentan-2-one	A3	-	-	-	-	-

## 11 . Toxicological information

### Teratogenicity

### Reproductive toxicity

**Developmental effects** : Contains material which may cause developmental abnormalities, based on animal data.

**Fertility effects** : Contains material which may impair male fertility, based on animal data. Contains material which may impair female fertility, based on animal data.

## 12 . Ecological information

**Environmental effects** : Water polluting material. May be harmful to the environment if released in large quantities.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Butanone	Acute LC50 3220000 to 3320000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Acute LC50 >400 ppm Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Acute LC50 >520000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Chronic NOEC 400 ppm Marine water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Chronic NOEC <70000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
Toluene	Acute LC50 5800 ug/L Fresh water	Fish - Rainbow trout, donaldson trout - Oncorhynchus mykiss	96 hours
	Acute EC50 6000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Chronic NOEC 28000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
BBP	Acute LC50 >780 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours
	Acute LC50 >680 ug/L Fresh water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Acute EC50 >0.76 mg/L Fresh water	Daphnia - Water flea - Daphnia magna	2 days
	Chronic NOEC 360 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus	96 hours
	Chronic NOEC 680 ug/L Fresh water	Fish - Sheepshead minnow - Cyprinodon variegatus	96 hours
	Chronic NOEC 620 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
4-methylpentan-2-one	Acute LC50 505000 to 514000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas	96 hours



## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: **HANDLING AND STORAGE** and Section 8: **EXPOSURE CONTROLS/PERSONAL PROTECTION** for additional handling information and protection of employees. Section 6. **Accidental release measures**

## 14 . Transport information

Regulation	UN number	Proper shipping name	Classes	PG*	Additional information
UN	1263	☑ AINT	3	II	-
IMDG	1263	☑ AINT. Marine pollutant (BBP)	3	II	☑
DOT	1263	☑ AINT	3	II	-

PG\* : Packing group

Reportable quantity RQ : CERCLA: Hazardous substances.: BBP: 100 lbs. (45.4 kg); butanone: 5000 lbs. (2270 kg); 4-methylpentan-2-one: 5000 lbs. (2270 kg); Toluene: 1000 lbs. (454 kg);

## 15 . Regulatory information

**United States inventory (TSCA 8b)** : All components are listed or exempted.  
**Australia inventory (AICS)** : All components are listed or exempted.  
**Canada inventory (DSL)** : All components are listed or exempted.  
**China inventory (IECSC)** : Not determined.  
**Europe inventory (REACH)** : Please contact your supplier for information on the inventory status of this material.  
**Japan inventory (ENCS)** : At least one component is not listed.  
**Korea inventory (KECI)** : All components are listed or exempted.  
**New Zealand (NZIoC)** : ☑ Substance Use Restricted  
**Philippines inventory (PICCS)** : Not determined.

### United States

**U.S. Federal regulations** :

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: BBP; Cellulose nitrate; butanone; 4-methylpentan-2-one; Toluene

CERCLA: Hazardous substances.: BBP: 100 lbs. (45.4 kg); butanone: 5000 lbs. (2270 kg); 4-methylpentan-2-one: 5000 lbs. (2270 kg); Toluene: 1000 lbs. (454 kg);

**SARA 311/312 MSDS Distribution - Chemical Inventory - Hazard Identification:**

<u>Chemical name</u>	<u>CAS #</u>	<u>Acute</u>	<u>Chronic</u>	<u>Fire</u>	<u>Reactive</u>	<u>Pressure</u>
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Product code **ACR-100**Date of issue **17 May 2011**Version **13**Product name **ACRYLIC LACQUER****15 . Regulatory information**

Butanone	78-93-3	Y	N	Y	N	N
Toluene	108-88-3	Y	Y	Y	N	N
BBP	85-68-7	Y	Y	N	N	N
4-methylpentan-2-one	108-10-1	Y	N	Y	N	N
Acetic acid, C6-8-branched alkyl esters	90438-79-2	N	N	N	N	N
Cellulose nitrate	9004-70-0	N	N	N	Y	N
Product as-supplied :		Y	Y	Y	N	N

**SARA 313**

Supplier notification

**Chemical name**Toluene  
4-methylpentan-2-one**CAS number**108-88-3  
108-10-1**Concentration**10 - 30  
3 - 7

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

**Canada**

WHMIS (Canada)

: Class B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).

**Mexico**

Classification

Flammability : 4 Health : 2 Reactivity : 0

**16 . Other information**

Hazardous Material Information System (U.S.A.)

Health : 2 \* Flammability : 4 Physical hazards : 0

(\*) - Chronic effects

Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.

The customer is responsible for determining the PPE code for this material.

National Fire Protection Association (U.S.A.)

Health : 2 Flammability : 4 Instability : 0

Date of previous issue : 10/2/2010.

Organization that prepared : EHS  
the MSDS

✓ Indicates information that has changed from previously issued version.

**Disclaimer**

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.