



# Material Safety Data Sheet

37CN03-001 BROWN DYE SOLUTION

## 1. Product and company identification

**Code** : 37CN03-001  
**Synonym** : BROWN DYE SOLUTION  
**Material uses** : Coatings: Surface coatings and finishes.  
**Manufacturer** : Akzo Nobel Coatings, Inc.  
311 Otterson Drive, Suite 60  
Chico, CA 95928  
Ph:530-894-3585 Fax:530-896-0657  
**In case of emergency** : 1-800-424-5571  
**Validation date** : 4/19/2007.  
**Print date** : 4/29/2008.  
**Validator** : K. DeBiasi

## 2. Hazardous ingredients

<u>Name</u>	<u>CAS number</u>	<u>%</u>
Methyl ethyl ketone	78-93-3	70 - 100

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

\* Toxicological information, if available, is listed in section 11

## 3. Hazards identification

**Physical state** : Liquid.

**OSHA/HCS status** : While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

**Routes of entry** : Dermal contact. Eye contact. Inhalation. Ingestion.

**Effects of Acute Exposure** : Not applicable.

**Potential chronic health effects** : **CARCINOGENIC EFFECTS:** Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Butanone].  
**MUTAGENIC EFFECTS:** Not available.  
**TERATOGENIC EFFECTS:** Not available.

See toxicological information (section 11)

## 4. First aid measures

**Eye contact** : Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

## 4 . First aid measures

- Inhalation** : Move exposed person 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if symptoms occur. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if symptoms occur. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

## 5 . Fire-fighting measures

- Flammability of the product** : Flammable.
- Products of combustion** : These products are carbon oxides (CO, CO<sub>2</sub>).
- Extinguishing media**
- Suitable** : Use an extinguishing agent suitable for the surrounding fire.
  - Not suitable** : None known.
- Special exposure hazards** : No specific hazard.
- Special Remarks on Fire Hazards** : Not available.
- 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.
- Fire Hazards in Presence of Various Substances** : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge.
- Explosion Hazards in Presence of Various Substances** : Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge.

## 6 . Accidental release measures

- Personal precautions** : Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment.
- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- Methods for cleaning up** : If emergency personnel are unavailable, contain spilled material. For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container for disposal. For large spills, dike spilled material or otherwise contain material to ensure runoff does not reach a waterway. Place spilled material in an appropriate container for disposal.

## 7 . Handling and storage

- Handling** : Wash thoroughly after handling.
- Storage** : Keep container tightly closed. Keep container in a cool, well-ventilated area.

## 8 . Exposure controls/personal protection

### Product name

2-Butanone

### Exposure limits

ACGIH TLV (United States, 1993).

TWA: 590 mg/m<sup>3</sup> 8 hour/hours.STEL: 585 mg/m<sup>3</sup> 15 minute/minutes.CEIL: 885 mg/m<sup>3</sup>

Consult local authorities for acceptable exposure limits.

### Engineering measures

- : No special ventilation requirements. Good general ventilation should be sufficient to control airborne levels. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits.

### Personal protection



- 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, gases or dusts.
- 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.
- 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.
- 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.

## 9 . Physical and chemical properties

- Physical state** : Liquid.
- Flash point** : The lowest known value is Closed cup: -6°C (21.2°F). (Tagliabue.). Open cup: -4°C (24.8°F). (2-Butanone)
- Auto-ignition temperature** : The lowest known value is 460°C (860°F) (2-Butanone).
- Flammable limits** : The greatest known range is Lower: 1.8% Upper: 10% (2-Butanone)
- Boiling/condensation point** : The lowest known value is 80°C (176°F) (2-Butanone).
- Melting/freezing point** : May start to solidify at -85°C (-121°F) based on data for: 2-Butanone.
- Relative density** : The only known value is 0.815 (Water = 1) (2-Butanone).
- Vapor pressure** : The highest known value is 10.3 kPa (77.5 mm Hg) (at 20°C) (2-Butanone).
- Vapor density** : The highest known value is 2.5 (Air = 1) (2-Butanone).
- Dispersibility properties** : See solubility in water, methanol, acetone.
- Solubility** : Easily soluble in methanol, acetone.  
Soluble in cold water, hot water.

## 10 . Stability and reactivity

- Stability and reactivity** : The product is stable.
- Incompatibility with various substances** : Slightly reactive or incompatible with the following materials: oxidizing materials and acids.  
Non-reactive or compatible with the following materials: reducing materials, combustible materials, metals, alkalis and moisture.

## 10 . Stability and reactivity

## 11 . Toxicological information

### Toxicity data

<u>Product/ingredient name</u>	<u>Test</u>	<u>Result</u>	<u>Route</u>	<u>Species</u>
2-Butanone	LD50	3000 mg/kg	Oral	Mouse
	LD50	2737 mg/kg	Oral	Rat
	LD50	6480 mg/kg	Dermal	Rabbit
	LC50	23500 mg/m <sup>3</sup> (8 hour/hours)	Inhalation	Rat
	LC50	32000 mg/m <sup>3</sup> (4 hour/hours)	Inhalation	Mouse

**Chronic effects on humans** : **CARCINOGENIC EFFECTS:** Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Butanone].

**Other toxic effects on humans** : Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

### Specific effects

**Carcinogenic effects** : No known significant effects or critical hazards.

**Mutagenic effects** : No known significant effects or critical hazards.

**Teratogenicity /**  
**Reproductive toxicity** : No known significant effects or critical hazards.

## 12 . Ecological information

**Environmental precautions** : No known significant effects or critical hazards.

**Products of degradation** : These products are carbon oxides (CO, CO<sub>2</sub>) and water.

**Toxicity of the products of biodegradation** : The product itself and its products of degradation are not toxic.

## 13 . Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. 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.

**Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.**

**The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.**

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

## 14 . Transport information

Regulatory information	UN number	Class	PG*	Label
<b>TDG Classification</b>	1263 PAINT	Not available.	-	

PG\* : Packing group

## 15 . Regulatory information

### United States

- HCS Classification** : Not regulated.
- 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: No products were found.  
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Methyl Ethyl Ketone: Fire hazard, Immediate (acute) health hazard  
Clean Water Act (CWA) 307: No products were found.  
Clean Water Act (CWA) 311: No products were found.  
Clean Air Act (CAA) 112 accidental release prevention: No products were found.  
Clean Air Act (CAA) 112 regulated flammable substances: No products were found.  
Clean Air Act (CAA) 112 regulated toxic substances: No products were found.
- State regulations** : SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Methyl Ethyl Ketone: Fire hazard, Immediate (acute) health hazard  
CERCLA: Hazardous substances.: Methyl Ethyl Ketone;

### Canada

- WHMIS (Canada)** : Class B-2: Flammable liquid  
Class D-2B: Material causing other toxic effects (Toxic).

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

## 16 . Other information

<b>Hazardous Material Information System (U.S.A.)</b> :	<b>Health</b>	1
	<b>Fire hazard</b>	4
	<b>Reactivity</b>	0
	<b>Personal protection</b>	G

\* Indicates may be chronic effects

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



Notice to reader

## 16 . Other information

To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.