

SAFETY DATA SHEET

FH411

Section 1. Identification

Product name : FINISH 1™ 2K HS Hardener (Part B)
Product code : FH411
Other means of identification : Not available.
Product type : Liquid.
Relevant identified uses of the substance or mixture and uses advised against
Not applicable.

Manufacturer : ACME AUTOMOTIVE FINISHES
101 PROSPECT AVENUE N.W.
CLEVELAND, OHIO 44115

Emergency telephone number of the company : (216) 566-2917

Product Information Telephone Number : Not available.

Regulatory Information Telephone Number : (216) 566-2902

Transportation Emergency Telephone Number : (800) 424-9300

Section 2. Hazards identification

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Classification of the substance or mixture : FLAMMABLE LIQUIDS - Category 3
ACUTE TOXICITY (inhalation) - Category 3
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
SKIN SENSITIZATION - Category 1
CARCINOGENICITY - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation and Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

GHS label elements

Hazard pictograms :



Signal word :

Hazard statements :

Danger
Flammable liquid and vapor.
Toxic if inhaled.
Causes serious eye irritation.
Causes skin irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause drowsiness and dizziness.
May cause damage to organs through prolonged or repeated exposure.

Date of issue/Date of revision :

4/6/2015.

Date of previous issue :

No previous validation.

Version : 1

1/15

Section 2. Hazards identification

Precautionary statements

- Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Wear protective gloves. Wear eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating, lighting and all material-handling equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Keep container tightly closed. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace.
- Response** : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. If skin irritation or rash occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.
- Storage** : Store locked up. Store in a well-ventilated place. Keep cool.
- Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.
- Supplemental label elements** : DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR PROFESSIONAL USE ONLY. This product must be mixed with other components before use. Before opening the packages, READ AND FOLLOW WARNING LABELS ON ALL COMPONENTS.
Please refer to the SDS for additional information. Do not transfer contents to other containers for storage.
- Hazards not otherwise classified** : None known.

Section 3. Composition/information on ingredients

- Substance/mixture** : Mixture
- Other means of identification** : Not available.

CAS number/other identifiers

| Ingredient name | % by weight | CAS number |
|------------------------------------|--------------------|-------------------|
| Hexamethylene Diisocyanate Polymer | 41.1 | 28182-81-2 |
| n-Butyl Acetate | 19.3 | 123-86-4 |
| Methyl Ethyl Ketone | 9.7 | 78-93-3 |
| Methyl n-Propyl Ketone | 9.2 | 107-87-9 |
| Xylene | 4.9 | 1330-20-7 |
| Methyl n-Amyl Ketone | 4.8 | 110-43-0 |
| 1,2,4-Trimethylbenzene | 1.0 | 95-63-6 |
| Ethylbenzene | 0.9 | 100-41-4 |
| Methyl Isobutyl Ketone | 0.5 | 108-10-1 |
| Cumene | 0.1 | 98-82-8 |

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.

Occupational exposure limits, if available, are listed in Section 8.

Section 4. First aid measures

Description of necessary first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. 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 necessary, call a poison center or physician. 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. 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.
- Skin contact** : Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 necessary, call a poison center or physician. 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.

Most important symptoms/effects, acute and delayed

Potential acute health effects

- Eye contact** : Causes serious eye irritation.
- Inhalation** : Toxic if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
- Skin contact** : Causes skin irritation. May cause an allergic skin reaction.
- Ingestion** : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:
pain or irritation
watering
redness
- Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
- Skin contact** : Adverse symptoms may include the following:
irritation
redness

Section 4. First aid measures

Ingestion : No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

- 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.
- Specific treatments** : No specific treatment.
- 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.

See toxicological information (Section 11)

Section 5. Fire-fighting measures

Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO₂, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

Specific hazards arising from the chemical : Flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides

Special protective actions for fire-fighters : 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.

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.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : 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. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

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).

Section 6. Accidental release measures

Methods and materials for containment and cleaning up

- 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. 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. Use spark-proof tools and explosion-proof equipment. 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.

Section 7. Handling and storage

Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. 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 only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

- Conditions for safe storage, including any incompatibilities** : 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. Store locked up. 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.

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

Section 8. Exposure controls/personal protection

| Ingredient name | Exposure limits |
|------------------------|---|
| n-Butyl Acetate | <p>ACGIH TLV (United States, 4/2014). TWA: 150 ppm 8 hours. STEL: 200 ppm 15 minutes.</p> <p>NIOSH REL (United States, 10/2013). TWA: 150 ppm 10 hours. TWA: 710 mg/m³ 10 hours. STEL: 200 ppm 15 minutes. STEL: 950 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 2/2013). TWA: 150 ppm 8 hours. TWA: 710 mg/m³ 8 hours.</p> |
| Methyl Ethyl Ketone | <p>ACGIH TLV (United States, 4/2014). 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> |
| Methyl n-Propyl Ketone | <p>NIOSH REL (United States, 10/2013). TWA: 150 ppm 10 hours. TWA: 530 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 200 ppm 8 hours. TWA: 700 mg/m³ 8 hours.</p> <p>ACGIH TLV (United States, 4/2014). STEL: 150 ppm 15 minutes.</p> |
| Xylene | <p>ACGIH TLV (United States, 4/2014). TWA: 100 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 150 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes.</p> <p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours.</p> |
| Methyl n-Amyl Ketone | <p>ACGIH TLV (United States, 4/2014). TWA: 50 ppm 8 hours. TWA: 233 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 100 ppm 10 hours. TWA: 465 mg/m³ 10 hours.</p> <p>OSHA PEL (United States, 2/2013). TWA: 100 ppm 8 hours. TWA: 465 mg/m³ 8 hours.</p> |
| 1,2,4-Trimethylbenzene | <p>ACGIH TLV (United States, 4/2014). TWA: 25 ppm 8 hours. TWA: 123 mg/m³ 8 hours.</p> <p>NIOSH REL (United States, 10/2013). TWA: 25 ppm 10 hours. TWA: 125 mg/m³ 10 hours.</p> |
| Ethylbenzene | <p>ACGIH TLV (United States, 4/2014). TWA: 20 ppm 8 hours.</p> <p>NIOSH REL (United States, 10/2013).</p> |

Section 8. Exposure controls/personal protection

Methyl Isobutyl Ketone

TWA: 100 ppm 10 hours.
 TWA: 435 mg/m³ 10 hours.
 STEL: 125 ppm 15 minutes.
 STEL: 545 mg/m³ 15 minutes.
OSHA PEL (United States, 2/2013).
 TWA: 100 ppm 8 hours.
 TWA: 435 mg/m³ 8 hours.
ACGIH TLV (United States, 4/2014).
 TWA: 20 ppm 8 hours.
 STEL: 75 ppm 15 minutes.
NIOSH REL (United States, 10/2013).
 TWA: 50 ppm 10 hours.
 TWA: 205 mg/m³ 10 hours.
 STEL: 75 ppm 15 minutes.
 STEL: 300 mg/m³ 15 minutes.

Cumene

OSHA PEL (United States, 2/2013).
 TWA: 100 ppm 8 hours.
 TWA: 410 mg/m³ 8 hours.
ACGIH TLV (United States, 4/2014).
 TWA: 50 ppm 8 hours.
NIOSH REL (United States, 10/2013).
Absorbed through skin.
 TWA: 50 ppm 10 hours.
 TWA: 245 mg/m³ 10 hours.
OSHA PEL (United States, 2/2013).
Absorbed through skin.
 TWA: 50 ppm 8 hours.
 TWA: 245 mg/m³ 8 hours.

Appropriate engineering controls

: 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.

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.

Individual protection measures

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. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection

: 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. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

Skin protection

Hand protection

: 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.

Section 8. Exposure controls/personal protection

- Body protection** : 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. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures 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 protection** : 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.

Section 9. Physical and chemical properties

Appearance

- Physical state** : Liquid.
- Color** : Not available.
- Odor** : Not available.
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 78°C (172.4°F)
- Flash point** : Closed cup: 27°C (80.6°F) [Pensky-Martens Closed Cup]
- Evaporation rate** : 5.6 (butyl acetate = 1)
- Flammability (solid, gas)** : Not available.
- Lower and upper explosive (flammable) limits** : Lower: 1%
Upper: 10%
- Vapor pressure** : 1.6 kPa (12.079 mm Hg) [at 20°C]
- Vapor density** : 2.48 [Air = 1]
- Relative density** : 0.95
- Solubility** : Not available.
- Partition coefficient: n-octanol/water** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- Viscosity** : Kinematic (room temperature): >0.07 cm²/s (>7 cSt)
Kinematic (40°C (104°F)): >0.07 cm²/s (>7 cSt)

Aerosol product

- Heat of combustion** : 0.00001818 kJ/g

Section 10. Stability and reactivity

- Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- Chemical stability** : The product is stable.
- Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

Section 10. Stability and reactivity

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. Do not allow vapor to accumulate in low or confined areas.

Incompatible materials : Reactive or incompatible with the following materials:
oxidizing materials

Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

| Product/ingredient name | Result | Species | Dose | Exposure |
|------------------------------------|--|----------------------|--|-------------------|
| Hexamethylene Diisocyanate Polymer | LC50 Inhalation Vapor | Rat | 18500 mg/m ³ | 1 hours |
| n-Butyl Acetate | LC50 Inhalation Gas. LD50 Dermal LD50 Oral | Rat Rabbit Rat | 390 ppm >17600 mg/kg 10768 mg/kg | 4 hours - - |
| Methyl Ethyl Ketone | LD50 Dermal LD50 Oral | Rabbit Rat | 6480 mg/kg 2737 mg/kg | - - |
| Methyl n-Propyl Ketone | LD50 Dermal LD50 Oral | Rabbit Rat | 6500 mg/kg 1600 mg/kg | - - |
| Xylene | LC50 Inhalation Gas. LD50 Oral | Rat Rat | 5000 ppm 4300 mg/kg | 4 hours - |
| Methyl n-Amyl Ketone | LD50 Oral | Rat | 1600 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor LD50 Oral | Rat Rat | 18000 mg/m ³ 5 g/kg | 4 hours - |
| Ethylbenzene | LD50 Dermal LD50 Oral | Rabbit Rat | >5000 mg/kg 3500 mg/kg | - - |
| Methyl Isobutyl Ketone | LD50 Oral | Rat | 2080 mg/kg | - |
| Cumene | LC50 Inhalation Vapor LD50 Oral | Rat Rat | 39000 mg/m ³ 1400 mg/kg | 4 hours - |

Irritation/Corrosion

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|------------------------------------|--------------------------|---------|-------|-------------------------|-------------|
| Hexamethylene Diisocyanate Polymer | Eyes - Moderate irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 500 milligrams | - |
| n-Butyl Acetate | Eyes - Moderate irritant | Rabbit | - | 100 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Methyl Ethyl Ketone | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |
| Methyl n-Propyl Ketone | Skin - Mild irritant | Rabbit | - | 405 milligrams | - |
| Xylene | Eyes - Mild irritant | Rabbit | - | 87 milligrams | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 milligrams | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 microliters | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 milligrams | - |

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|------------------------|--------------------------|--------|---|--------------------------|---|
| Methyl n-Amyl Ketone | Skin - Moderate irritant | Rabbit | - | 100 Percent | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 14 milligrams | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 milligrams | - |
| Methyl Isobutyl Ketone | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 microliters | - |
| | Eyes - Severe irritant | Rabbit | - | 40 milligrams | - |
| Cumene | Skin - Mild irritant | Rabbit | - | 24 hours 500 milligrams | - |
| | Eyes - Mild irritant | Rabbit | - | 86 milligrams | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 10 milligrams | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 100 milligrams | - |

Sensitization

Not available.

Mutagenicity

Not available.

Carcinogenicity

Not available.

Classification

| Product/ingredient name | OSHA | IARC | NTP |
|-------------------------|------|------|-----|
| Xylene | - | 3 | - |
| Ethylbenzene | - | 2B | - |
| Methyl Isobutyl Ketone | - | 2B | - |
| Cumene | - | 2B | - |

Reproductive toxicity

Not available.

Teratogenicity

Not available.

Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------|------------|-------------------|---|
| Methyl Ethyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Methyl n-Propyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Xylene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Methyl n-Amyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| 1,2,4-Trimethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |

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| | | | |
|------------------------|------------|-----------------|---|
| Ethylbenzene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Methyl Isobutyl Ketone | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |
| Cumene | Category 3 | Not applicable. | Respiratory tract irritation and Narcotic effects |

Specific target organ toxicity (repeated exposure)

| Name | Category | Route of exposure | Target organs |
|------------------------|------------|-------------------|----------------|
| Methyl Ethyl Ketone | Category 2 | Not determined | Not determined |
| Methyl n-Propyl Ketone | Category 2 | Not determined | Not determined |
| Xylene | Category 2 | Not determined | Not determined |
| Methyl n-Amyl Ketone | Category 2 | Not determined | Not determined |
| 1,2,4-Trimethylbenzene | Category 2 | Not determined | Not determined |
| Ethylbenzene | Category 2 | Not determined | Not determined |
| Methyl Isobutyl Ketone | Category 2 | Not determined | Not determined |
| Cumene | Category 2 | Not determined | Not determined |

Aspiration hazard

| Name | Result |
|------------------------|--------------------------------|
| Xylene | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |

Information on the likely routes of exposure : Not available.

Potential acute health effects

Eye contact : Causes serious eye irritation.

Inhalation : Toxic if inhaled. Can cause central nervous system (CNS) depression. May cause drowsiness and dizziness. May cause respiratory irritation. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.

Skin contact : Causes skin irritation. May cause an allergic skin reaction.

Ingestion : Can cause central nervous system (CNS) depression. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : Adverse symptoms may include the following:
 pain or irritation
 watering
 redness

Inhalation : Adverse symptoms may include the following:
 respiratory tract irritation
 coughing
 nausea or vomiting
 headache
 drowsiness/fatigue
 dizziness/vertigo
 unconsciousness

- Skin contact** : Adverse symptoms may include the following:
irritation
redness
- Ingestion** : No specific data.

Delayed and immediate effects and also chronic effects from short and long term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

General : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

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.

Numerical measures of toxicity

Acute toxicity estimates

| Route | ATE value |
|---------------------|--------------|
| Oral | 6280.5 mg/kg |
| Inhalation (gases) | 1985.6 ppm |
| Inhalation (vapors) | 22.2 mg/l |

Section 12. Ecological information

Toxicity

| Product/ingredient name | Result | Species | Exposure |
|-------------------------|--------------------------------------|--|----------|
| n-Butyl Acetate | Acute LC50 32000 µg/l Marine water | Crustaceans - Artemia salina - Nauplii | 48 hours |
| Methyl Ethyl Ketone | Acute LC50 18000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute EC50 >500000 µg/l Marine water | Algae - Skeletonema costatum | 96 hours |
| | Acute EC50 5091000 µg/l Fresh water | Daphnia - Daphnia magna - Larvae | 48 hours |
| Methyl n-Propyl Ketone | Acute LC50 3220000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 1240000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 8500 µg/l Marine water | Crustaceans - Palaemonetes pugio | 48 hours |
| Xylene | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 131000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscrus - Adult | 48 hours |
| Methyl n-Amyl Ketone | Acute LC50 13400 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Acute LC50 131000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| 1,2,4-Trimethylbenzene | Acute LC50 4910 µg/l Marine water | Crustaceans - Elasmopus pecteniscrus - Adult | 48 hours |
| | Acute LC50 7720 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |

Section 12. Ecological information

| | | | |
|------------------------|------------------------------------|---|----------|
| Ethylbenzene | Acute EC50 4600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 3600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 96 hours |
| | Acute EC50 6530 µg/l Fresh water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 2930 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| Methyl Isobutyl Ketone | Acute LC50 4200 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |
| | Acute LC50 505000 µg/l Fresh water | Fish - Pimephales promelas | 96 hours |
| | Chronic NOEC 78 mg/l Fresh water | Daphnia - Daphnia magna | 21 days |
| | Chronic NOEC 168 mg/l Fresh water | Fish - Pimephales promelas - Embryo | 33 days |
| Cumene | Acute EC50 2600 µg/l Fresh water | Algae - Pseudokirchneriella subcapitata | 72 hours |
| | Acute EC50 7400 µg/l Fresh water | Crustaceans - Artemia sp. - Nauplii | 48 hours |
| | Acute EC50 10600 µg/l Fresh water | Daphnia - Daphnia magna - Neonate | 48 hours |
| | Acute LC50 2700 µg/l Fresh water | Fish - Oncorhynchus mykiss | 96 hours |

Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|-------------------------|-------------------|------------|------------------|
| n-Butyl Acetate | - | - | Readily |
| Methyl Ethyl Ketone | - | - | Readily |
| Xylene | - | - | Readily |
| Methyl n-Amyl Ketone | - | - | Readily |
| Ethylbenzene | - | - | Readily |
| Methyl Isobutyl Ketone | - | - | Readily |

Bioaccumulative potential

| Product/ingredient name | LogP _{ow} | BCF | Potential |
|-------------------------|--------------------|-------------|-----------|
| Xylene | - | 8.1 to 25.9 | low |
| 1,2,4-Trimethylbenzene | - | 243 | low |
| Cumene | - | 94.69 | low |

Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Other adverse effects : No known significant effects or critical hazards.

Section 13. Disposal considerations






Disposal methods : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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

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Section 13. Disposal considerations

cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|-----------------------------------|--|--|--|--|--|
| UN number | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| UN proper shipping name | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL | PAINT RELATED MATERIAL |
| Transport hazard class(es) | 3  | 3  | 3  | 3  | 3  |
| Packing group | III | III | III | III | III |
| Environmental hazards | No. | No. | No. | No. | No. |
| Additional information | Special provisions Not Applicable | Special provisions Not Applicable | Special provisions (ERG#128) | Special provisions Not Applicable | Emergency schedules (EmS) F-E, S-E |

Special precautions for user : Multi-modal shipping descriptions are provided for informational purposes and do not consider container sizes. The presence of a shipping description for a particular mode of transport (sea, air, etc.), does not indicate that the product is packaged suitably for that mode of transport. All packaging must be reviewed for suitability prior to shipment, and compliance with the applicable regulations is the sole responsibility of the person offering the product for transport. People loading and unloading dangerous goods must be trained on all of the risks deriving from the substances and on all actions in case of emergency situations.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code : Not available.

Section 15. Regulatory information

U.S. Federal regulations :
State regulations

California Prop. 65

WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.

Section 16. Other information

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

| | | |
|------------------|---|---|
| Health | * | 3 |
| Flammability | | 3 |
| Physical hazards | | 0 |
| | | |

Section 16. Other information

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 SDSs 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.

Notice to reader

It is recommended that each customer or recipient of this Safety Data Sheet (SDS) study it carefully and consult resources, as necessary or appropriate, to become aware of and understand the data contained in this SDS and any hazards associated with the product. This information is provided in good faith and believed to be accurate as of the effective date herein. However, no warranty, express or implied, is given. The information presented here applies only to the product as shipped. The addition of any material can change the composition, hazards and risks of the product. Regulatory requirements are subject to change and may differ between various locations and jurisdictions. The customer/buyer/user is responsible to ensure that his activities comply with all country, federal, state, provincial or local laws. The conditions for use of the product are not under the control of the manufacturer; the customer/buyer/user is responsible to determine the conditions necessary for the safe use of this product. The customer/buyer/user should not use the product for any purpose other than the purpose shown in the applicable section of this SDS without first referring to the supplier and obtaining written handling instructions. Due to the proliferation of sources for information such as manufacturer-specific SDS, the manufacturer cannot be responsible for SDSs obtained from any other source.