



## KEY 21

## MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: KEY 11  
 GENERAL OR GENERIC ID: SOLVENT BLEND  
 COMPANY NAME: Keystone Automotive Industries, Inc.  
 COMPANY ADDRESS: 700 East Bonita Ave.  
 Pomona, CA 91767  
 COMPANY PHONE: 1-800-772-5557  
 EMERGENCY PHONE: 1-800-424-9300

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient(s)	CAS Number	% (by weight)
ACETONE	67-64-1	32.0 - 36.0
METHYL ALCOHOL	67-56-1	24.0 - 28.0
TOLENE	108-88-3	37.0 - 42.0
ALIPHATIC PETROLEUM DISTILLATES	64742-89-8	8.0 - 12.0
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	2.0 - 6.0
2,2-DIMETHOXYPROPANE	77-76-9	2.5 - 6.0
UNKNOWN MATERIAL		1.0 - 3.3

## 3. HAZARDS IDENTIFICATION

## Potential Health Effects

## Eye

Can cause eye irritation\_ Symptoms include stinging, tearing, redness, and swelling of eyes.

## Skin

May cause mild skin irritation. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, drying and cracking of skin, and skin burns. Passage of this material into the body through the skin is possible, and may add to toxic effects from breathing or swallowing.

## Swallowing

Swallowing this material may be harmful. This material can get into the lungs during swallowing or vomiting. This results in lung inflammation and other lung injury.

#### Inhalation

Breathing of vapor or mist is possible. Breathing this material may be harmful. Symptoms usually occur at air concentrations higher than the recommended exposure limits (See Section 8).

#### Symptoms of Exposure

Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: metallic taste, mouth and throat irritation (soreness, dry or scratchy feeling, cough), stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system excitation (giddiness, liveliness, light-headed feeling) followed by central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness) and other central nervous system effects, temporary changes in mood and behavior, leg cramps, muscle weakness, pain in the abdomen and lower back, blurred vision, shortness of breath, loss of coordination, confusion, irregular heartbeat, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), high blood sugar, blood in the urine, blood abnormalities (breakage of red blood cells), kidney damage, liver damage, visual impairment (including blindness), coma, and death.

#### Target Organ Effects

Acute lethal exposure to ethylene glycol monobutyl ether in animal studies has resulted in congestion of organs including kidney, spleen, and lung. This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. Exposure to lethal concentrations of methanol has been shown to cause damage to organs including liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage. Prolonged intentional toluene abuse may lead to damage to many organ systems having effects on: central and peripheral nervous systems, vision, hearing, liver, kidneys, heart and blood. Such abuse has been associated with brain damage characterized by disturbances in gait, personality changes and loss of memory. Comparable central nervous system effects have not been shown to result from occupational exposure to toluene. Prolonged intentional toluene abuse may lead to hearing loss progressing to deafness. In addition, while noise is known to cause hearing loss in humans, it has been suggested that workers exposed to organic solvents, including toluene, along with noise may suffer greater hearing loss than would be expected from exposure to noise alone. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: mild, irreversible kidney effects, blood abnormalities, liver abnormalities, respiratory tract damage (nose, throat and airways), effects on hearing, central nervous system damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: kidney damage, visual impairment.

#### Developmental Information

Toluene may be harmful to the human fetus based on positive test results with laboratory animals. Case studies show that prolonged intentional abuse of toluene during pregnancy can cause birth defects in humans. Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

#### Cancer Information

Based on the available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration. Ethylene Glycol Monobutyl Ether has been shown to

cause cancer in laboratory animals. The relevance of these findings to humans is uncertain.

#### Other Health Effects

No data

#### Primary Route(s) of Entry

Inhalation, Skin absorption, Skin contact, Eye contact, Ingestion.

#### 4. FIRST AID MEASURES

##### Eyes

If symptoms develop, immediately move individual away from exposure and into fresh air. Flush eyes gently with water for at least 15 minutes while holding eyelids apart; seek immediate medical attention.

##### Skin

Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.

##### Swallowing

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

##### Inhalation

If symptoms develop, move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

##### Note to Physicians

Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis. This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity (See Section 3 - Swallowing) when deciding whether to induce vomiting. This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion. Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material: respiratory tract, skin, lung (for example, asthma-like conditions), liver, kidney, central nervous system, pancreas, heart, blood-forming system, auditory system. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias. Individuals with preexisting heart disorders may be more susceptible to arrhythmias (irregular heartbeats) if exposed to high concentrations of this material.

## 5. FIRE FIGHTING MEASURES

## Flash Point

< -1.0 F (-18.3 C) TCC

## Explosive Limit

(for component) Lower 1.1 Upper 36.0 %

## Autoignition Temperature

No data

## Hazardous Products of Combustion

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

## Fire and Explosion Hazards

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge, or other ignition sources at locations distant from material handling point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively.

## Extinguishing Media

Regular foam (such as AFFF), water fog, carbon dioxide, dry chemical.

## Fire Fighting Instructions

Wear full firefighting turn-out gear (full bunker gear), and respiratory protection (SCBA).

## NFPA Rating

Health - 2, Flammability - 3, Reactivity - 0

## 6. ACCIDENTAL RELEASE MEASURES

## Small Spill

Eliminate all sources of ignition such as flares, flames (including pilot lights), and electrical sparks. Absorb liquid on vermiculite, floor absorbent or other absorbent material. Persons not wearing proper personal protective equipment should be excluded from area of spill.

## Large Spill

Prevent run-off to sewers, streams or other bodies of water. If run-off occurs, notify proper authorities as required, that a spill has occurred. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks).

## 7. HANDLING AND STORAGE

## Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77. Precautions during use: avoid prolonged or frequently repeated skin contact with

this material. Skin contact can be minimized by wearing impervious protective gloves. As with all products of this nature, good personal hygiene is essential. Hands and other exposed areas should be washed thoroughly with soap and water after contact, especially before eating and/or smoking. Regular laundering of contaminated clothing is essential to reduce indirect skin contact with this material. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable liquids. Warning. Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without the presence of obvious ignition sources. Published "auto ignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions.

#### Storage

Under oxidation conditions, peroxides may be formed. If they become concentrated, these peroxides may present an explosion hazard. Do not store near extreme heat, open flame, or sources of ignition.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Eye Protection

Chemical splash goggles in compliance with OSHA regulations are advised; however, OSHA regulations also permit other type safety glasses. Consult your safety representative.

#### Skin Protection

Wear resistant gloves (consult your safety equipment supplier). To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

#### Respiratory Protections

If workplace exposure limit(s) of product or any component is exceeded (see exposure guidelines), a NIOSH/MSHA approved air supplied respirator is advised in absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions (see your industrial hygienist). Engineering or administrative controls should be implemented to reduce exposure.

#### Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below TLV(s).

#### Exposure Guidelines

Component  
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##### ACETONE (67-64-1)

OSHA PEL 1000.000 ppm - TWA  
OSHA VPEL 750.000 ppm - TWA  
OSHA VPEL 1000.000 ppm - STEL  
ACGIH TLV 500.000 ppm - TWA  
ACGIH TLV 750.000 ppm - STEL

##### METHYL ALCOHOL (67-56-1)

OSHA PEL 200.000 ppm - TWA  
OSHA VPEL 200.000 ppm - TWA (Skin)

OSHA VPEL 250.000 ppm - STEL (Skin)  
ACGIH TLV 200.000 ppm - TWA (Skin)  
ACGIH TLV 250.000 ppm - STEL (Skin)

TOLUENE (108-88-3)  
OSHA PEL 200.000 ppm - TWA  
OSHA PEL 300.000 ppm - Ceiling  
OSHA VPEL 100.000 ppm - TWA  
OSHA VPEL 150.000 ppm - STEL  
ACGIH TLV 50.000 ppm - TWA (Skin)  
ACGIH TLV 150.000 ppm - STEL (Skin)

ALIPHATIC PETROLEUM DISTILLATES (64742-89-8)  
OSHA VPEL 300.000 ppm - TWA  
OSHA VPEL 400.000 ppm - STEL  
ACGIH TLV 300.000 ppm - TWA

ETHYLENE GLYCOL MONOBUTYL ETHER (111-76-2)  
OSHA PEL 50.000 ppm - TWA (Skin)  
OSHA VPEL 25.000 ppm - TWA (Skin)  
ACGIH TLV 20.000 ppm - TWA

2,2-DIMETHOXYPROPANE (77-76-9)  
No exposure limits established

UNKNOWN MATERIAL  
No exposure limits established

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point  
(for component) 133.0 F (56.1 C)

Vapor Pressure  
(for product) 110.227 mmHg @ 68.00 F  
(CA-SCAQMD) 55.586 mmHg @ 68.00 F

Specific Vapor Density  
> 1.000 @ AIR=1

Specific Gravity  
.787 - .819 @ 68.00 F

Liquid Density  
6.680 lbs/gal @ 68.00 F  
.796 kg/l @ 20.00 C

Percent Volatiles  
No Data

Volatile Organic Compounds (VOC)  
4.46 lbs/gal / 433.000 g/l (CA-SCAQMD)  
6.68 lbs/gal / 799.88 g/l

Evaporation Rate  
SLOWER THAN ETHYL ETHER

## Appearance

CLEAR AND PARTICLE FREE

## State

LIQUID

## Physical Form

HOMOGENEOUS SOLUTION

## Color

WATER WHITE

## Odor

Hydrocarbon

## 10. STABILITY AND REACTIVITY

## Hazardous Polymerization

Product will not undergo hazardous polymerization.

## Hazardous Decomposition

May form: carbon dioxide and carbon monoxide, various hydrocarbons.

## Chemical Stability

Stable.

## Incompatibility

Avoid contact with: acids, amines, calcium hypochlorite, chromic acid, chromium trioxide, copper, copper alloys, hydrochloric acid, nitric acid, perchloric acid, peroxides, sodium, strong alkalies, strong oxidizing agents, sulfuric acid, zinc.

## 11. TOXICOLOGICAL INFORMATION

No data

## 12. ECOLOGICAL INFORMATION

No data

## 13. DISPOSAL CONSIDERATION

## Waste Management Information

Dispose of in accordance with all applicable local, state and federal regulations. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit, and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

## 14. TRANSPORT INFORMATION

## DOT Information - 49 CFR 172.101

## DOT Description:

FLAMMABLE LIQUIDS N.O.S., 3, UN1993, II

## Container/Mode:

55 GAL DRUM/TRUCK PACKAGE

NOS Component:  
 ACETONE  
 LACOLENE

Other Transportation Information

The DOT Transport Information may vary with the container and mode of shipment.

15. REGULATORY INFORMATION

US Federal Regulations

TSCA (Toxic Substances Control Act) Status

TSCA (UNITED STATES) The intentional ingredients of this product are listed.

CERCLA RQ - 40 CFR 302.4(a)

Component	RQ (lbs)
ACETONE	5000
TOLUENE	1000
METHYL ALCOHOL	5000

SARA 302 Components - 40 CFR 355 Appendix A  
 None

Section 311/312 Hazard Class - 40 CFR 370.2

Immediate(X) Delayed(X) Fire(X) Reactive( ) Sudden  
 Release of Pressure( )

SARA 313 Components - 40 CFR 372.65

Section 313 Component(s)	CAS Number	%
METHANOL	67-56-1	27.80
TOLUENE	100-41-4	20.62
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	4.00

OSHA Process Safety Management 29 CFR 1910  
 None listed

EPA Accidental Release Prevention 40 CFR 68  
 listed None

International Regulations

Inventory Status  
 Not determined

State and Local Regulations

California Proposition 65

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause cancer.  
 BENZENE

The following statement is made in order to comply with the California Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains the following substance(s) known to the state of California to cause reproductive harm.  
 TOLUENE  
 BENZENE

## New Jersey RTK Label Information

ACETONE	67-64-1
METHYL ALCOHOL	67-56-1
TOLUENE	108-88-3
NAPHTHA SOLVENT	64742-89-8
2-BUTOXY ETHANOL	111-76-2

## Pennsylvania RTK Label Information

2-PROPANONE	67-64-1
METHANOL	67-56-1
BENZENE, METHYL-	108-88-3
ALIPHATIC PETROLEUM DISTILLATES	64742-89-8
ETHANOL, 2-BUTOXY-	111-76-2

## 16. OTHER INFORMATION

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.