



# SAFETY DATA SHEET

## 1. Identification

**Product identifier**                      **Cenex Top Tier Detergent Regular Midgrade and Premium Unleaded Gasoline**  
**Other means of identification**        None.  
**Recommended use**                      Vehicle fuel gas  
**Recommended restrictions**            None known.

### Manufacturer/Importer/Supplier/Distributor information

CHS MRI  
2000 South Main Street  
McPherson, KS 67460, USA  
www.chsinc.com  
Tel: 620- 241-2340  
Emergency telephone:  
1-800-424-9300 (within USA & Canada)

## 2. Hazard(s) identification

|   |   |   |
|---|---|---|
| <b>Physical hazards</b>                           | Flammable liquids   | Category 1                              |
| <b>Health hazards</b>                             | Skin corrosion/irritation                                 | Category 2                              |
|   | Serious eye damage/eye irritation                         | Category 2A                             |
|   | Germ cell mutagenicity                                    | Category 1B                             |
|   | Carcinogenicity   | Category 1A                             |
|   | Reproductive toxicity                                     | Category 2                              |
|   | Specific target organ toxicity, single exposure           | Category 3 respiratory tract irritation |
|   | Specific target organ toxicity, single exposure           | Category 3 narcotic effects             |
| Specific target organ toxicity, repeated exposure | Category 1 (Central Nervous System, hematopoietic system) |   |
| Aspiration hazard                                 | Category 1  |   |
| <b>Environmental hazards</b>                      | Hazardous to the aquatic environment, acute hazard        | Category 2                              |
|   | Hazardous to the aquatic environment, long-term hazard    | Category 2                              |
| <b>OSHA defined hazards</b>                       | Not classified.   |   |

### Label elements



**Signal word**

Danger

**Hazard statement**

Extremely flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation. May cause drowsiness or dizziness. May cause genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child. Causes damage to organs (Central Nervous System, hematopoietic system) through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.

## Precautionary statement

### Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist/vapors. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

### Response

If swallowed: Immediately call a poison center/doctor. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Wash contaminated clothing before reuse. In case of fire: Use appropriate media to extinguish. Collect spillage.

### Storage

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

### Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

### Hazard(s) not otherwise classified (HNOC)

None known.

### Supplemental information

None.

## 3. Composition/information on ingredients

### Mixtures

| Chemical name          | CAS number | %        |
|------------------------|------------|----------|
| Gasoline, natural      | 8006-61-9  | 90 - 100 |
| Xylene                 | 1330-20-7  | 10 - 25  |
| Toluene                | 108-88-3   | 10 - 13  |
| Benzene                | 71-43-2    | 5 - 10   |
| n-Hexane               | 110-54-3   | 5 - 7    |
| Ethanol                | 64-17-5    | 0 - 10   |
| 1,2,4-Trimethylbenzene | 95-63-6    | 3 - 5    |
| Ethylbenzene           | 100-41-4   | 3 - 5    |
| Naphthalene            | 91-20-3    | 1 - 3    |

### Composition comments

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

## 4. First-aid measures

### Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

### Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

### Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

### Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

### Most important symptoms/effects, acute and delayed

Aspiration may cause pulmonary edema and pneumonitis. Convulsions. May cause drowsiness or dizziness. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Unconsciousness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Cyanosis (blue tissue condition, nails, lips, and/or skin). Prolonged exposure may cause chronic effects.

### Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

|  |   |
|--|---|
| <b>General information</b>   | Take off all contaminated clothing immediately. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.  |
| <b>5. Fire-fighting measures</b>   |   |
| <b>Suitable extinguishing media</b>  | Water spray. Alcohol resistant foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).  |
| <b>Unsuitable extinguishing media</b>                                      | Do not use water jet as an extinguisher, as this will spread the fire.  |
| <b>Specific hazards arising from the chemical</b>                          | Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. During fire, gases hazardous to health may be formed. Runoff to sewer may create fire or explosion hazard. Heating causes a rise in pressure; risk of bursting and explosion. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back.   |
| <b>Special protective equipment and precautions for firefighters</b>       | Self-contained breathing apparatus and full protective clothing must be worn in case of fire.   |
| <b>Fire fighting equipment/instructions</b>                                | In case of fire and/or explosion do not breathe fumes. Remove or isolate all sources of ignition. Move containers from fire area if you can do so without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn.  |
| <b>Specific methods</b>  | Use standard firefighting procedures and consider the hazards of other involved materials.  |
| <b>General fire hazards</b>  | Extremely flammable liquid and vapor.   |
| <b>6. Accidental release measures</b>                                      |   |
| <b>Personal precautions, protective equipment and emergency procedures</b> | Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist/vapors. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.   |
| <b>Methods and materials for containment and cleaning up</b>               | Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Take precautionary measures against static discharge. Use only non-sparking tools. Prevent product from entering drains.<br><br>Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.<br><br>Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Wipe up with absorbent material. Clean surface thoroughly to remove residual contamination.<br><br>Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS. |
| <b>Environmental precautions</b>   | Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.  |
| <b>7. Handling and storage</b>   |   |
| <b>Precautions for safe handling</b>                                       | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist/vapors. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.  |
| <b>Conditions for safe storage, including any incompatibilities</b>        | Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a cool, dry place out of direct sunlight. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS).  |

## 8. Exposure controls/personal protection

### Occupational exposure limits

#### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

| Components            | Type | Value |
|-----------------------|------|-------|
| Benzene (CAS 71-43-2) | STEL | 5 ppm |
|                       | TWA  | 1 ppm |

#### US. OSHA Table Z-1 Permissible Exposure Limits (PEL) for Air Contaminants (29 CFR 1910.1000)

| Components                  | Type | Value      |
|-----------------------------|------|------------|
| Ethanol (CAS 64-17-5)       | PEL  | 1900 mg/m3 |
|                             |      | 1000 ppm   |
| Ethylbenzene (CAS 100-41-4) | PEL  | 435 mg/m3  |
|                             |      | 100 ppm    |
| Naphthalene (CAS 91-20-3)   | PEL  | 50 mg/m3   |
|                             |      | 10 ppm     |
| n-Hexane (CAS 110-54-3)     | PEL  | 1800 mg/m3 |
|                             |      | 500 ppm    |
| Xylene (CAS 1330-20-7)      | PEL  | 435 mg/m3  |
|                             |      | 100 ppm    |

#### US. OSHA Table Z-2 Permissible Exposure Limits (PEL) (29 CFR 1910.1000)

| Components             | Type    | Value   |
|------------------------|---------|---------|
| Benzene (CAS 71-43-2)  | Ceiling | 25 ppm  |
|                        | TWA     | 10 ppm  |
| Toluene (CAS 108-88-3) | Ceiling | 300 ppm |
|                        | TWA     | 200 ppm |

#### US. ACGIH Threshold Limit Values (TLV)

| Components                           | Type | Value    |
|--------------------------------------|------|----------|
| 1,2,4-Trimethylbenzene (CAS 95-63-6) | TWA  | 10 ppm   |
| Benzene (CAS 71-43-2)                | STEL | 2.5 ppm  |
|                                      | TWA  | 0.5 ppm  |
| Ethanol (CAS 64-17-5)                | STEL | 1000 ppm |
| Ethylbenzene (CAS 100-41-4)          | TWA  | 20 ppm   |
| Naphthalene (CAS 91-20-3)            | TWA  | 10 ppm   |
| n-Hexane (CAS 110-54-3)              | TWA  | 50 ppm   |
| Toluene (CAS 108-88-3)               | TWA  | 20 ppm   |
| Xylene (CAS 1330-20-7)               | TWA  | 20 ppm   |

#### NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended

| Components                  | Type | Value    |
|-----------------------------|------|----------|
| Benzene (CAS 71-43-2)       | IDLH | 1.2 %    |
|                             |      | 500 ppm  |
| Ethanol (CAS 64-17-5)       | IDLH | 3.3 %    |
|                             |      | 3300 ppm |
| Ethylbenzene (CAS 100-41-4) | IDLH | 0.8 %    |
|                             |      | 800 ppm  |
| Naphthalene (CAS 91-20-3)   | IDLH | 0.9 %    |
|                             |      | 250 ppm  |

**NIOSH. Immediately Dangerous to Life or Health (IDLH) Values, as amended**

| Components              | Type | Value             |
|-------------------------|------|-------------------|
| n-Hexane (CAS 110-54-3) | IDLH | 1.1 %<br>1100 ppm |
| Toluene (CAS 108-88-3)  | IDLH | 1.1 %<br>500 ppm  |

**US. NIOSH: Pocket Guide to Chemical Hazards**

| Components                           | Type | Value                  |
|--------------------------------------|------|------------------------|
| 1,2,4-Trimethylbenzene (CAS 95-63-6) | TWA  | 125 mg/m3<br>25 ppm    |
| Benzene (CAS 71-43-2)                | STEL | 1 ppm                  |
|                                      | TWA  | 0.1 ppm                |
| Ethanol (CAS 64-17-5)                | TWA  | 1900 mg/m3<br>1000 ppm |
| Ethylbenzene (CAS 100-41-4)          | STEL | 545 mg/m3<br>125 ppm   |
|                                      | TWA  | 435 mg/m3<br>100 ppm   |
| Naphthalene (CAS 91-20-3)            | STEL | 75 mg/m3<br>15 ppm     |
|                                      | TWA  | 50 mg/m3<br>10 ppm     |
| n-Hexane (CAS 110-54-3)              | TWA  | 180 mg/m3<br>50 ppm    |
| Toluene (CAS 108-88-3)               | STEL | 560 mg/m3<br>150 ppm   |
|                                      | TWA  | 375 mg/m3<br>100 ppm   |
| Xylene (CAS 1330-20-7)               | STEL | 655 mg/m3<br>150 ppm   |
|                                      | TWA  | 435 mg/m3<br>100 ppm   |

**Biological limit values**

| <b>ACGIH</b>          |          |                  |                     |               |
|-----------------------|----------|------------------|---------------------|---------------|
| Components            | Value    | Determinant      | Specimen            | Sampling Time |
| Benzene (CAS 71-43-2) | 500 µg/g | t,t-Muconic acid | Creatinine in urine | *             |

| <b>ACGIH Biological Exposure Indices (BEI)</b> |          |   |                     |               |
|--|----------|---|---------------------|---------------|
| Components                                     | Value    | Determinant                                   | Specimen            | Sampling Time |
| Benzene (CAS 71-43-2)                          | 25 µg/g  | S-Phenylmercapturic acid                      | Creatinine in urine | *             |
| Ethylbenzene (CAS 100-41-4)                    | 0.15 g/g | Sum of mandelic acid and phenylglyoxylic acid | Creatinine in urine | *             |
| n-Hexane (CAS 110-54-3)                        | 0.5 mg/l | 2,5-Hexanedione, without hydrolysis           | Urine               | *             |

**ACGIH Biological Exposure Indices (BEI)**

| Components             | Value     | Determinant               | Specimen            | Sampling Time |
|------------------------|-----------|---------------------------|---------------------|---------------|
| Toluene (CAS 108-88-3) | 0.3 mg/g  | o-Cresol, with hydrolysis | Creatinine in urine | *             |
|                        | 0.03 mg/l | Toluene                   | Urine               | *             |
|                        | 0.02 mg/l | Toluene                   | Blood               | *             |
| Xylene (CAS 1330-20-7) | 1.5 g/g   | Methylhippuric acids      | Creatinine in urine | *             |

\* - For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

|                           |                                   |
|---------------------------|-----------------------------------|
| Benzene (CAS 71-43-2)     | Can be absorbed through the skin. |
| Naphthalene (CAS 91-20-3) | Can be absorbed through the skin. |
| n-Hexane (CAS 110-54-3)   | Can be absorbed through the skin. |
| Toluene (CAS 108-88-3)    | Can be absorbed through the skin. |

**US - Minnesota Haz Subs: Skin designation applies**

|                        |                           |
|------------------------|---------------------------|
| Toluene (CAS 108-88-3) | Skin designation applies. |
|------------------------|---------------------------|

**US ACGIH Threshold Limit Values: Skin designation**

|                           |                                |
|---------------------------|--------------------------------|
| Benzene (CAS 71-43-2)     | Danger of cutaneous absorption |
| Naphthalene (CAS 91-20-3) | Danger of cutaneous absorption |
| n-Hexane (CAS 110-54-3)   | Danger of cutaneous absorption |

**Appropriate engineering controls**

Explosion-proof general and local exhaust ventilation. Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station and safety shower.

**Individual protection measures, such as personal protective equipment**

|                               |  |
|-------------------------------|--|
| <b>Eye/face protection</b>    | Wear chemical splash goggles/face shield.  |
| <b>Skin protection</b>        |  |
| <b>Hand protection</b>        | Wear appropriate chemical resistant gloves. Viton® or nitrile rubber gloves are recommended.                         |
| <b>Skin protection</b>        |  |
| <b>Other</b>                  | Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.                             |
| <b>Respiratory protection</b> | In case of inadequate ventilation: Wear a NIOSH approved cartridge respirator equipped with organic vapor cartridge. |
| <b>Thermal hazards</b>        | Wear appropriate thermal protective clothing, when necessary.  |

**General hygiene considerations**

Observe any medical surveillance requirements. When using do not smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

**9. Physical and chemical properties****Appearance**

|                       |                                    |
|-----------------------|------------------------------------|
| <b>Physical state</b> | Liquid.                            |
| <b>Form</b>           | Liquid.                            |
| <b>Color</b>          | Clear to straw-colored. \ Reddish. |

**Odor** Strong Hydrocarbon.

**Odor threshold** Not available.

**pH** Not applicable.

**Melting point/freezing point** -36.4 °F (-38 °C)

**Initial boiling point and boiling range** 69.8 °F (21 °C)

**Flash point** -36.4 °F (-38 °C) Pensky-Martens Closed Cup

**Evaporation rate** Not available.

**Flammability (solid, gas)** Not applicable.

## Upper/lower flammability or explosive limits

Explosive limit - lower (%) 1.4 %

Explosive limit - upper (%) 7.6 %

Vapor pressure  $\geq 34.5 - \leq 103.4$  kPa (room temperature)

Vapor density 5 (Air = 1)

Relative density 0.74 (Water = 1)

## Solubility(ies)

Solubility (water) Negligible.

Partition coefficient  
(n-octanol/water) Not available.

Auto-ignition temperature 852.8 °F (456 °C)

Decomposition temperature Not available.

Viscosity Not available.

## Other information

Explosive properties Not explosive.

Oxidizing properties Not oxidizing.

## 10. Stability and reactivity

Reactivity The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability Material is stable under normal conditions.

Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.

Conditions to avoid Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong acids. Strong oxidizing agents. Alkalis.

Hazardous decomposition products No hazardous decomposition products are known.

## 11. Toxicological information

### Information on likely routes of exposure

**Inhalation** May cause drowsiness or dizziness. Headache. Nausea, vomiting. May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

**Skin contact** Causes skin irritation.

**Eye contact** Causes serious eye irritation.

**Ingestion** Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

**Symptoms related to the physical, chemical and toxicological characteristics** Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness or dizziness. Convulsions. Narcosis. Headache. Nausea, vomiting. Behavioral changes. Decrease in motor functions. Unconsciousness. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Skin irritation. May cause redness and pain. Cyanosis (blue tissue condition, nails, lips, and/or skin). Prolonged exposure may cause chronic effects.

### Information on toxicological effects

Acute toxicity Not known.

| Components                           | Species | Test Results      |
|--------------------------------------|---------|-------------------|
| 1,2,4-Trimethylbenzene (CAS 95-63-6) |         |                   |
| <b>Acute</b>                         |         |                   |
| <b>Oral</b>                          |         |                   |
| LD50                                 | Rat     | 2720 - 3960 mg/kg |
| Benzene (CAS 71-43-2)                |         |                   |
| <b>Acute</b>                         |         |                   |
| <b>Oral</b>                          |         |                   |
| LD50                                 | Rat     | 930 mg/kg         |

| Components                               | Species   | Test Results        |
|--|---|---------------------|
| Ethanol (CAS 64-17-5)                    |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Dermal</b>                            |   |                     |
| LD50                                     | Rat   | > 2000 mg/kg        |
| <b>Inhalation</b>                        |   |                     |
| <i>Vapor</i>                             |   |                     |
| LC50                                     | Mouse   | 39 g/m3, 4 Hours    |
| <b>Oral</b>                              |   |                     |
| LD50                                     | Rat   | 7000 - 11000 mg/kg  |
| Ethylbenzene (CAS 100-41-4)              |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Dermal</b>                            |   |                     |
| LD50                                     | Rabbit  | 15400 mg/kg         |
| <b>Inhalation</b>                        |   |                     |
| LC50                                     | Rat   | 17.4 mg/l, 4 hours  |
| <b>Oral</b>                              |   |                     |
| LD50                                     | Rat   | 3500 - 4700 mg/kg   |
| Naphthalene (CAS 91-20-3)                |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Dermal</b>                            |   |                     |
| LD50                                     | Rabbit  | > 2 g/kg            |
| <b>Oral</b>                              |   |                     |
| LD50                                     | Rat   | 490 mg/kg           |
| n-Hexane (CAS 110-54-3)                  |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Dermal</b>                            |   |                     |
| LD50                                     | Rabbit  | > 2000 mg/kg        |
| <b>Inhalation</b>                        |   |                     |
| <i>Vapor</i>                             |   |                     |
| LC50                                     | Mouse, Rat  | 169.2 mg/l, 4 Hours |
| <b>Oral</b>                              |   |                     |
| LD50                                     | Rat   | 28710 mg/kg         |
| Toluene (CAS 108-88-3)                   |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Dermal</b>                            |   |                     |
| LD50                                     | Rabbit  | 12200 mg/kg         |
| <b>Inhalation</b>                        |   |                     |
| <i>Vapor</i>                             |   |                     |
| LC50                                     | Rat   | 28.1 mg/l, 4 Hours  |
| Xylene (CAS 1330-20-7)                   |   |                     |
| <b>Acute</b>                             |   |                     |
| <b>Oral</b>                              |   |                     |
| LD50                                     | Rat   | 3523 mg/kg          |
| <b>Skin corrosion/irritation</b>         | Causes skin irritation.                                   |                     |
| <b>Serious eye damage/eye irritation</b> | Causes serious eye irritation.                            |                     |
| <b>Respiratory or skin sensitization</b> |   |                     |
| <b>Respiratory sensitization</b>         | Not a respiratory sensitizer.                             |                     |
| <b>Skin sensitization</b>                | This product is not expected to cause skin sensitization. |                     |
| <b>Germ cell mutagenicity</b>            | May cause genetic defects.                                |                     |

**Carcinogenicity** May cause cancer.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

|                                   |   |
|-----------------------------------|---|
| Benzene (CAS 71-43-2)             | 1 Carcinogenic to humans.                           |
| Ethylbenzene (CAS 100-41-4)       | 2B Possibly carcinogenic to humans.                 |
| Gasoline, natural (CAS 8006-61-9) | 2B Possibly carcinogenic to humans.                 |
| Naphthalene (CAS 91-20-3)         | 2B Possibly carcinogenic to humans.                 |
| Toluene (CAS 108-88-3)            | 3 Not classifiable as to carcinogenicity to humans. |
| Xylene (CAS 1330-20-7)            | 3 Not classifiable as to carcinogenicity to humans. |

**NTP Report on Carcinogens**

|                           |   |
|---------------------------|---|
| Benzene (CAS 71-43-2)     | Known To Be Human Carcinogen.   |
| Naphthalene (CAS 91-20-3) | Known To Be Human Carcinogen.<br>Reasonably Anticipated to be a Human Carcinogen. |

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)**

|                       |        |
|-----------------------|--------|
| Benzene (CAS 71-43-2) | Cancer |
|-----------------------|--------|

**Reproductive toxicity** Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. Suspected of damaging fertility or the unborn child.

**Specific target organ toxicity - single exposure** May cause respiratory irritation. May cause drowsiness or dizziness.

**Specific target organ toxicity - repeated exposure** Causes damage to organs (Central Nervous System, hematopoietic system) through prolonged or repeated exposure.

**Aspiration hazard** May be fatal if swallowed and enters airways.

**Chronic effects** Prolonged inhalation may be harmful. Causes damage to organs through prolonged or repeated exposure. Prolonged exposure may cause chronic effects.

**12. Ecological information**

**Ecotoxicity** Toxic to aquatic life with long lasting effects.

| Components                           |      | Species   | Test Results                     |
|--------------------------------------|------|---|----------------------------------|
| 1,2,4-Trimethylbenzene (CAS 95-63-6) |      |   |                                  |
| <b>Aquatic</b>                       |      |   |                                  |
| <i>Acute</i>                         |      |   |                                  |
| Fish                                 | LC50 | Fathead minnow ( <i>Pimephales promelas</i> )                 | 7.72 mg/l, 96 hours              |
| Ethanol (CAS 64-17-5)                |      |   |                                  |
| <b>Aquatic</b>                       |      |   |                                  |
| <i>Acute</i>                         |      |   |                                  |
| Crustacea                            | LC50 | <i>Ceriodaphnia dubia</i>                                     | 5012 mg/l, 48 hours              |
|                                      |      | <i>Daphnia magna</i>  | 454 mg/l, 11 days                |
| Fish                                 | LC50 | <i>Pimephales promelas</i>                                    | 13480 mg/l, 96 hours             |
| <i>Chronic</i>                       |      |   |                                  |
| Crustacea                            | NOEC | <i>Ceriodaphnia dubia</i>                                     | 9.6 mg/l, 10 days                |
| Ethylbenzene (CAS 100-41-4)          |      |   |                                  |
| <b>Aquatic</b>                       |      |   |                                  |
| <i>Acute</i>                         |      |   |                                  |
| Crustacea                            | EC50 | Water flea ( <i>Daphnia magna</i> )                           | 1.81 - 2.38 mg/l, 48 hours       |
| Fish                                 | LC50 | Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> ) | 4.2 mg/l, 96 hours               |
| <i>Chronic</i>                       |      |   |                                  |
| Crustacea                            | EC50 | <i>Ceriodaphnia dubia</i>                                     | 3.6 mg/l, 7 days                 |
| Naphthalene (CAS 91-20-3)            |      |   |                                  |
| <b>Aquatic</b>                       |      |   |                                  |
| <i>Acute</i>                         |      |   |                                  |
| Crustacea                            | EC50 | Water flea ( <i>Daphnia magna</i> )                           | >= 1.09 - <= 3.4 mg/l, 48 hours  |
| Fish                                 | LC50 | Pink salmon ( <i>Oncorhynchus gorbuscha</i> )                 | >= 0.95 - <= 1.62 mg/l, 96 hours |

| Components              | Species | Test Results   |
|-------------------------|---------|--|
| n-Hexane (CAS 110-54-3) |         |  |
| <b>Aquatic</b>          |         |  |
| <i>Acute</i>            |         |  |
| Crustacea               | LC50    | Daphnia magna<br>2.1 mg/l, 48 hours  |
| Fish                    | LC50    | Pimephales promelas<br>2.5 mg/l, 96 hours                                    |
| Toluene (CAS 108-88-3)  |         |  |
| <b>Aquatic</b>          |         |  |
| <i>Acute</i>            |         |  |
| Crustacea               | EC50    | Daphnia magna<br>11.5 mg/l, 48 hours   |
| Fish                    | LC50    | Oncorhynchus kisutch<br>5.5 mg/l, 96 hours                                   |
| <i>Chronic</i>          |         |  |
| Crustacea               | NOEC    | Ceriodaphnia dubia<br>0.74 mg/l, 7 days                                      |
| Fish                    | NOEC    | Oncorhynchus kisutch<br>1.4 mg/l, 40 days                                    |
| Xylene (CAS 1330-20-7)  |         |  |
| <b>Aquatic</b>          |         |  |
| Fish                    | LC50    | Rainbow trout,donaldson trout<br>(Oncorhynchus mykiss)<br>2.6 mg/l, 96 hours |

**Persistence and degradability** No data is available on the degradability of any ingredients in the mixture.

**Bioaccumulative potential**

**Partition coefficient n-octanol / water (log Kow)**

|                                      |       |
|--------------------------------------|-------|
| 1,2,4-Trimethylbenzene (CAS 95-63-6) | 3.78  |
| Benzene (CAS 71-43-2)                | 2.13  |
| Ethanol (CAS 64-17-5)                | -0.31 |
| Ethylbenzene (CAS 100-41-4)          | 3.15  |
| Toluene (CAS 108-88-3)               | 2.73  |
| n-Hexane (CAS 110-54-3)              | 3.9   |

**Mobility in soil** The product is insoluble in water. Expected to have low mobility in soil.

**Other adverse effects** This product contains one or more substances identified as hazardous air pollutants (HAPs) per the US Federal Clean Air Act (see section 15).

### 13. Disposal considerations

**Disposal instructions** Dispose of this material and its container to hazardous or special waste collection point. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Hazardous waste code** D001: Waste Flammable material with a flash point <140 F  
D018: Waste Benzene  
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

**DOT**

|                                   |  |
|-----------------------------------|--|
| <b>UN number</b>                  | UN1203   |
| <b>UN proper shipping name</b>    | Gasoline includes gasoline mixed with ethyl alcohol, with not more than 10 % alcohol |
| <b>Transport hazard class(es)</b> |  |
| <b>Class</b>                      | 3  |
| <b>Subsidiary risk</b>            | -  |
| <b>Label(s)</b>                   | 3  |

|                                     |   |
|-------------------------------------|---|
| <b>Packing group</b>                | II  |
| <b>Environmental hazards</b>        |   |
| <b>Marine pollutant</b>             | Yes.  |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |
| <b>Special provisions</b>           | 144, 177, B1, B33, IB2, T4  |
| <b>Packaging exceptions</b>         | 150   |
| <b>Packaging non bulk</b>           | 202   |
| <b>Packaging bulk</b>               | 242   |

#### IATA

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1203  |
| <b>UN proper shipping name</b>      | Petrol  |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 3   |
| <b>Subsidiary risk</b>              | -   |
| <b>Packing group</b>                | II  |
| <b>Environmental hazards</b>        | Yes.  |
| <b>ERG Code</b>                     | 3H  |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

#### IMDG

|                                     |   |
|-------------------------------------|---|
| <b>UN number</b>                    | UN1203  |
| <b>UN proper shipping name</b>      | MOTOR SPIRIT or GASOLINE or PETROL                                      |
| <b>Transport hazard class(es)</b>   |   |
| <b>Class</b>                        | 3   |
| <b>Subsidiary risk</b>              | -   |
| <b>Packing group</b>                | II  |
| <b>Environmental hazards</b>        |   |
| <b>Marine pollutant</b>             | Yes   |
| <b>EmS</b>                          | F-E, S-E  |
| <b>Special precautions for user</b> | Read safety instructions, SDS and emergency procedures before handling. |

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

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

|                                   |         |
|-----------------------------------|---------|
| Benzene (CAS 71-43-2)             | Listed. |
| Ethylbenzene (CAS 100-41-4)       | Listed. |
| Gasoline, natural (CAS 8006-61-9) | Listed. |
| Naphthalene (CAS 91-20-3)         | Listed. |
| n-Hexane (CAS 110-54-3)           | Listed. |
| Toluene (CAS 108-88-3)            | Listed. |
| Xylene (CAS 1330-20-7)            | Listed. |

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

|                       |                              |
|-----------------------|------------------------------|
| Benzene (CAS 71-43-2) | Cancer                       |
|                       | Central nervous system       |
|                       | Blood                        |
|                       | Aspiration                   |
|                       | Skin                         |
|                       | Eye                          |
|                       | respiratory tract irritation |
|                       | Flammability                 |

#### Toxic Substances Control Act (TSCA)

All components of the mixture on the TSCA 8(b) inventory are designated "active".

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

### SARA 302 Extremely hazardous substance

Not listed.

### SARA 311/312 Hazardous chemical

Yes

**Classified hazard categories**

- Flammable (gases, aerosols, liquids, or solids)
- Skin corrosion or irritation
- Serious eye damage or eye irritation
- Germ cell mutagenicity
- Carcinogenicity
- Reproductive toxicity
- Specific target organ toxicity (single or repeated exposure)
- Aspiration hazard

### SARA 313 (TRI reporting)

| Chemical name          | CAS number | % by wt. |
|------------------------|------------|----------|
| 1,2,4-Trimethylbenzene | 95-63-6    | 3 - 5    |
| Benzene                | 71-43-2    | 5 - 10   |
| Ethylbenzene           | 100-41-4   | 3 - 5    |
| Naphthalene            | 91-20-3    | 1 - 3    |
| n-Hexane               | 110-54-3   | 5 - 7    |
| Toluene                | 108-88-3   | 10 - 13  |
| Xylene                 | 1330-20-7  | 10 - 25  |

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

- Benzene (CAS 71-43-2)
- Ethylbenzene (CAS 100-41-4)
- Naphthalene (CAS 91-20-3)
- n-Hexane (CAS 110-54-3)
- Toluene (CAS 108-88-3)
- Xylene (CAS 1330-20-7)

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

#### Safe Drinking Water Act (SDWA)

Contains component(s) regulated under the Safe Drinking Water Act.

#### Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Toluene (CAS 108-88-3) 6594

#### Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

Toluene (CAS 108-88-3) 35 %WV

#### DEA Exempt Chemical Mixtures Code Number

Toluene (CAS 108-88-3) 594

#### FEMA Priority Substances Respiratory Health and Safety in the Flavor Manufacturing Workplace

Ethanol (CAS 64-17-5) Low priority

### US state regulations

#### US. Massachusetts RTK - Substance List

- 1,2,4-Trimethylbenzene (CAS 95-63-6)
- Benzene (CAS 71-43-2)
- Ethanol (CAS 64-17-5)
- Ethylbenzene (CAS 100-41-4)
- Gasoline, natural (CAS 8006-61-9)
- Naphthalene (CAS 91-20-3)
- n-Hexane (CAS 110-54-3)
- Toluene (CAS 108-88-3)
- Xylene (CAS 1330-20-7)

#### US. New Jersey Worker and Community Right-to-Know Act

- 1,2,4-Trimethylbenzene (CAS 95-63-6)
- Benzene (CAS 71-43-2)
- Ethanol (CAS 64-17-5)
- Ethylbenzene (CAS 100-41-4)
- Gasoline, natural (CAS 8006-61-9)

Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### US. Pennsylvania Worker and Community Right-to-Know Law

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### US. Rhode Island RTK

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Ethanol (CAS 64-17-5)  
Ethylbenzene (CAS 100-41-4)  
Gasoline, natural (CAS 8006-61-9)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### California Proposition 65



**WARNING:** This product can expose you to chemicals including Benzene, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### California Proposition 65 - CRT: Listed date/Carcinogenic substance

|                             |                           |
|-----------------------------|---------------------------|
| Benzene (CAS 71-43-2)       | Listed: February 27, 1987 |
| Ethylbenzene (CAS 100-41-4) | Listed: June 11, 2004     |
| Naphthalene (CAS 91-20-3)   | Listed: April 19, 2002    |

#### California Proposition 65 - CRT: Listed date/Developmental toxin

|                        |                           |
|------------------------|---------------------------|
| Benzene (CAS 71-43-2)  | Listed: December 26, 1997 |
| Toluene (CAS 108-88-3) | Listed: January 1, 1991   |

#### California Proposition 65 - CRT: Listed date/Male reproductive toxin

|                         |                           |
|-------------------------|---------------------------|
| Benzene (CAS 71-43-2)   | Listed: December 26, 1997 |
| n-Hexane (CAS 110-54-3) | Listed: December 15, 2017 |

#### US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

1,2,4-Trimethylbenzene (CAS 95-63-6)  
Benzene (CAS 71-43-2)  
Ethylbenzene (CAS 100-41-4)  
Gasoline, natural (CAS 8006-61-9)  
Naphthalene (CAS 91-20-3)  
n-Hexane (CAS 110-54-3)  
Toluene (CAS 108-88-3)  
Xylene (CAS 1330-20-7)

#### International Inventories

| Country(s) or region | Inventory name   | On inventory (yes/no)* |
|----------------------|--|------------------------|
| Australia            | Australian Inventory of Industrial Chemicals (AICIS)                   | Yes                    |
| Canada               | Domestic Substances List (DSL)   | Yes                    |
| Canada               | Non-Domestic Substances List (NDSL)                                    | No                     |
| China                | Inventory of Existing Chemical Substances in China (IECSC)             | Yes                    |
| Europe               | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes                    |
| Europe               | European List of Notified Chemical Substances (ELINCS)                 | No                     |
| Japan                | Inventory of Existing and New Chemical Substances (ENCS)               | No                     |
| Korea                | Existing Chemicals List (ECL)  | Yes                    |
| New Zealand          | New Zealand Inventory  | Yes                    |

| Country(s) or region        | Inventory name  | On inventory (yes/no)* |
|-----------------------------|---|------------------------|
| Philippines                 | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes                    |
| Taiwan                      | Taiwan Chemical Substance Inventory (TCSI)                        | Yes                    |
| United States & Puerto Rico | Toxic Substances Control Act (TSCA) Inventory                     | Yes                    |

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

|                      |   |
|----------------------|---|
| <b>Issue date</b>    | 12-September-2023   |
| <b>Revision date</b> | -   |
| <b>Version #</b>     | 01  |
| <b>HMIS® ratings</b> | Health: 3*<br>Flammability: 4<br>Physical hazard: 0   |
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