

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

## 1 Identification

- **Product identifier**
- **Trade name:** Piano Reference  
Standard #38
- **Article number:** THE224
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Aqua Solutions, Inc.  
6913 Highway 225  
DEER PARK, TX 77536  
USA  
800-256-2586
- **Information department:**  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org  
Technical Coordinator  
Sherman Nelson sherman@aquasolutions.org
- **Emergency telephone number:**  
Chemtrec: 800-424-9300  
Canutec: 613-996-6666



## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS02 Flame

Flam. Liq. 2 H225      Highly flammable liquid and vapor.

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GHS06 Skull and crossbones

Acute Tox. 2 H310      Fatal in contact with skin.

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GHS08 Health hazard

Muta. 1B H340      May cause genetic defects.

Carc. 1A H350      May cause cancer.

Repr. 2 H361      Suspected of damaging fertility or the unborn child.

STOT RE 1 H372-H373 Causes damage to organs through prolonged or repeated exposure. May cause damage to the hearing organs through prolonged or repeated exposure.

Asp. Tox. 1 H304      May be fatal if swallowed and enters airways.

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GHS07

Skin Irrit. 2 H315      Causes skin irritation.

Eye Irrit. 2A H319      Causes serious eye irritation.

STOT SE 3 H336      May cause drowsiness or dizziness.

(Contd. on page 2)

US

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 1)

· **Label elements**

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



· **Signal word** *Danger*

· **Hazard-determining components of labeling:**

*Benzene*

*Hexane*

*Toluene*

*Ethylbenzene, Anhydrous, 99.8%*

*n-Heptane*

*Cyclohexane*

*Nonane, 99%*

*decane*

· **Hazard statements**

*Highly flammable liquid and vapor.*

*Fatal in contact with skin.*

*Causes skin irritation.*

*Causes serious eye irritation.*

*May cause genetic defects.*

*May cause cancer.*

*Suspected of damaging fertility or the unborn child.*

*May cause drowsiness or dizziness.*

*Causes damage to organs through prolonged or repeated exposure. May cause damage to the hearing organs through prolonged or repeated exposure.*

*May be fatal if swallowed and enters airways.*

· **Precautionary statements**

*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.*

*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 dust/fume/gas/mist/vapors/spray.*

*Do not get in eyes, on skin, or on clothing.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Use only outdoors or in a well-ventilated area.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*If swallowed: Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*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.*

(Contd. on page 3)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 2)

*IF exposed or concerned: Get medical advice/attention.  
Call a poison center/doctor if you feel unwell.  
Get medical advice/attention if you feel unwell.  
Take off immediately all contaminated clothing and wash it before reuse.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

## 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 71-43-2	Benzene	35.15%
CAS: 142-82-5	n-Heptane	15.75%
CAS: 110-54-3	Hexane	15.45%
CAS: 108-88-3	Toluene	12.23%
CAS: 110-82-7	Cyclohexane	6.72%
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	4.9%
CAS: 111-84-2	Nonane, 99%	3.84%
CAS: 124-18-5	decane	2.91%
CAS: 112-40-3	dodecane	1.98%
CAS: 77-73-6	3a,4,7,7a-tetrahydro-4,7-methanoindene	1.07%

US

(Contd. on page 4)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 3)

## 4 First-aid measures

- **Description of first aid measures**
- **General information:**  
Immediately remove any clothing soiled by the product.  
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- **After inhalation:** In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Mount respiratory protective device.  
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

CAS: 71-43-2	Benzene	52 ppm
CAS: 142-82-5	n-Heptane	500 ppm
CAS: 110-54-3	Hexane	260 ppm
CAS: 108-88-3	Toluene	67 ppm
CAS: 110-82-7	Cyclohexane	300 ppm

(Contd. on page 5)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 4)

CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	33 ppm
CAS: 111-84-2	Nonane, 99%	600 ppm
CAS: 124-18-5	decane	6.6 ppm
CAS: 112-40-3	dodecane	1.7 ppm
CAS: 77-73-6	3a,4,7,7a-tetrahydro-4,7-methanoindene	0.01 ppm

· **PAC-2:**

CAS: 71-43-2	Benzene	800 ppm
CAS: 142-82-5	n-Heptane	830 ppm
CAS: 110-54-3	Hexane	2900* ppm
CAS: 108-88-3	Toluene	560 ppm
CAS: 110-82-7	Cyclohexane	1700* ppm
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	1100* ppm
CAS: 111-84-2	Nonane, 99%	830 ppm
CAS: 124-18-5	decane	73 ppm
CAS: 112-40-3	dodecane	18 ppm
CAS: 77-73-6	3a,4,7,7a-tetrahydro-4,7-methanoindene	5 ppm

· **PAC-3:**

CAS: 71-43-2	Benzene	4000* ppm
CAS: 142-82-5	n-Heptane	5000* ppm
CAS: 110-54-3	Hexane	8600** ppm
CAS: 108-88-3	Toluene	3700* ppm
CAS: 110-82-7	Cyclohexane	10000** ppm
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	1800* ppm
CAS: 111-84-2	Nonane, 99%	5,000 ppm
CAS: 124-18-5	decane	440 ppm
CAS: 112-40-3	dodecane	110 ppm
CAS: 77-73-6	3a,4,7,7a-tetrahydro-4,7-methanoindene	75 ppm

## 7 Handling and storage

· **Handling:**· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Prevent formation of aerosols.

· **Information about protection against explosions and fires:**

Keep ignition sources away - Do not smoke.  
Protect against electrostatic charges.  
Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**· **Storage:**

· **Requirements to be met by storerooms and receptacles:** Store in a cool location.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

(Contd. on page 6)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 5)

- Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

### CAS: 71-43-2 Benzene

<b>PEL</b>	Short-term value: 15* mg/m <sup>3</sup> , 5* ppm Long-term value: 3* mg/m <sup>3</sup> , 1* ppm *table Z-2 for exclusions in 29CFR1910.1028(d)
<b>REL</b>	Short-term value: 1 ppm Long-term value: 0.1 ppm See Pocket Guide App. A
<b>TLV</b>	Short-term value: 8 mg/m <sup>3</sup> , 2.5 ppm Long-term value: 1.6 mg/m <sup>3</sup> , 0.5 ppm Skin; BEI

### CAS: 142-82-5 n-Heptane

<b>PEL</b>	Long-term value: 2000 mg/m <sup>3</sup> , 500 ppm
<b>REL</b>	Long-term value: 350 mg/m <sup>3</sup> , 85 ppm Ceiling limit value: 1800* mg/m <sup>3</sup> , 440* ppm *15-min
<b>TLV</b>	Short-term value: 2050 mg/m <sup>3</sup> , 500 ppm Long-term value: 1640 mg/m <sup>3</sup> , 400 ppm

### CAS: 110-54-3 Hexane

<b>PEL</b>	Long-term value: 1800 mg/m <sup>3</sup> , 500 ppm
<b>REL</b>	Long-term value: 180 mg/m <sup>3</sup> , 50 ppm
<b>TLV</b>	Long-term value: 176 mg/m <sup>3</sup> , 50 ppm Skin; BEI

### CAS: 108-88-3 Toluene

<b>PEL</b>	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
<b>REL</b>	Short-term value: 560 mg/m <sup>3</sup> , 150 ppm Long-term value: 375 mg/m <sup>3</sup> , 100 ppm
<b>TLV</b>	Long-term value: 75 mg/m <sup>3</sup> , 20 ppm BEI

### CAS: 110-82-7 Cyclohexane

<b>PEL</b>	Long-term value: 1050 mg/m <sup>3</sup> , 300 ppm
<b>REL</b>	Long-term value: 1050 mg/m <sup>3</sup> , 300 ppm
<b>TLV</b>	Long-term value: 344 mg/m <sup>3</sup> , 100 ppm

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 6)

**CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%**PEL Long-term value: 435 mg/m<sup>3</sup>, 100 ppmREL Short-term value: 545 mg/m<sup>3</sup>, 125 ppm  
Long-term value: 435 mg/m<sup>3</sup>, 100 ppmTLV Long-term value: 87 mg/m<sup>3</sup>, 20 ppm  
BEI**CAS: 111-84-2 Nonane, 99%**REL Long-term value: 1050 mg/m<sup>3</sup>, 200 ppmTLV Long-term value: 1050 mg/m<sup>3</sup>, 200 ppm**CAS: 77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene**REL Long-term value: 30 mg/m<sup>3</sup>, 5 ppmTLV Short-term value: NIC-4.5 mg/m<sup>3</sup>, NIC-1 ppm  
Long-term value: (27) NIC-2.7 mg/m<sup>3</sup>, (5) NIC-0.5 ppm**· Ingredients with biological limit values:****CAS: 71-43-2 Benzene**BEI 25 µg/g creatinine  
LD50 Intraperitoneal: urine  
Time: end of shift Parameter  
LD50: S-Phenylmercapturic acid (background)500 µg/g creatinine  
LD50 Intraperitoneal: urine  
Time: end of shift  
LD50: t,t-Muconic acid (background)**CAS: 110-54-3 Hexane**BEI 0.4 mg/L  
LD50 Intraperitoneal: urine  
Time: end of shift at end of workweek  
LD50: 2,5-Hexanedione without hydrolysis**CAS: 108-88-3 Toluene**BEI 0.02 mg/L  
LD50 Intraperitoneal: blood  
Time: prior to last shift of workweek  
LD50: Toluene0.03 mg/L  
LD50 Intraperitoneal: urine  
Time: end of shift  
LD50: Toluene0.3 mg/g creatinine  
LD50 Intraperitoneal: urine  
Time: end of shift  
LD50: o-Cresol with hydrolysis (background)

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 7)

**CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%**

<b>BEI</b>	0.7 g/g creatinine LD50 Intraperitoneal: urine Time: end of shift at end of workweek LD50: Sum of mandelic acid and phenylglyoxylic acid (nonspecific, semi-quantitative)
-	LD50 Intraperitoneal: end-exhaled air Time: not critical LD50: Ethyl benzene (semi-quantitative)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Immediately remove all soiled and contaminated clothing.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.
- Avoid contact with the eyes and skin.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

US

(Contd. on page 9)



# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 8)

## 9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

<b>Form:</b>	Liquid
<b>Color:</b>	Clear
<b>Odor:</b>	Organic
<b>Odor threshold:</b>	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	69 °C (156.2 °F)

· **Flash point:** -26 °C (-14.8 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 215 °C (419 °F)

· **Decomposition temperature:** Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· **Explosion limits:**

<b>Lower:</b>	1.1 Vol %
<b>Upper:</b>	8 Vol %

· **Vapor pressure at 20 °C (68 °F):** 160 hPa (120 mm Hg)

· **Density at 20 °C (68 °F):** 0.79345 g/cm<sup>3</sup> (6.62134 lbs/gal)

· **Relative density** Not determined.

· **Vapor density** Not determined.

· **Evaporation rate** Not determined.

· **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.

· **Solvent content:**

<b>Organic solvents:</b>	97.0 %
<b>VOC content:</b>	96.95 %
	769.2 g/l / 6.42 lb/gal

**Solids content:** 0.0 %

· **Other information** No further relevant information available.

## 10 Stability and reactivity

· **Reactivity** No further relevant information available.

(Contd. on page 10)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 9)

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

### ATE (Acute Toxicity Estimate)

Oral	LD50	7,899 mg/kg (rat)
Dermal	LD50	137 mg/kg (mouse)
Inhalative	LC50/4h	204 mg/l

### CAS: 71-43-2 Benzene

Dermal	LD50	5 mg/kg (ATE)
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- **Primary irritant effect:**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:  
Irritant

The product can cause inheritable damage.

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

CAS: 71-43-2	Benzene	1
CAS: 108-88-3	Toluene	3
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	2B

- **NTP (National Toxicology Program)**

CAS: 71-43-2	Benzene	K
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- **OSHA-Ca (Occupational Safety & Health Administration)**

CAS: 71-43-2	Benzene
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## 12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.

(Contd. on page 11)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**






(Contd. of page 10)

- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

## 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>· <b>UN-Number</b></li> <li>· <b>DOT, IMDG, IATA</b></li> </ul>   | <p style="margin-left: 20px;">UN1992</p>   |
| <ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>DOT</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul> | <p style="margin-left: 20px;">Flammable liquids, toxic, n.o.s. (Benzene, Hexanes, Heptanes, Toluene)</p> <p style="margin-left: 20px;">FLAMMABLE LIQUID, TOXIC, N.O.S. (BENZENE, HEXANES, HEPTANES, TOLUENE), MARINE POLLUTANT</p> <p style="margin-left: 20px;">FLAMMABLE LIQUID, TOXIC, N.O.S. (BENZENE, HEXANES, HEPTANES, TOLUENE)</p> |
| <ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>DOT</b></li> </ul>  | <div style="display: flex; align-items: center; gap: 10px;">   </div>  |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>   | <p style="margin-left: 20px;">3 Flammable liquids</p> <p style="margin-left: 20px;">3, 6.1</p>   |
| <ul style="list-style-type: none"> <li>· <b>IMDG</b></li> </ul>  | <div style="display: flex; align-items: center; gap: 10px;">    </div>            |
| <ul style="list-style-type: none"> <li>· <b>Class</b></li> </ul>   | <p style="margin-left: 20px;">3 Flammable liquids</p>  |

(Contd. on page 12)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference  
Standard #38**

(Contd. of page 11)

· **Label** 3/6.1

· **IATA**



· **Class** 3 Flammable liquids  
· **Label** 3 (6.1)

· **Packing group**  
· **DOT, IMDG, IATA** II

· **Environmental hazards:** Product contains environmentally hazardous substances: n-Heptane  
· **Marine pollutant:** Symbol (fish and tree)

· **Special precautions for user** Warning: Flammable liquids  
· **Danger code (Kemler):** 336  
· **EMS Number:** F-E,S-D  
· **Stowage Category** B  
· **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of  
MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:**

· **DOT**  
· **Quantity limitations** On passenger aircraft/rail: 1 L  
On cargo aircraft only: 60 L

· **IMDG**  
· **Limited quantities (LQ)** 1L  
· **Excepted quantities (EQ)** Code: E2  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":** UN 1992 FLAMMABLE LIQUID, TOXIC, N.O.S. (BENZENE, HEXANES, HEPTANES, TOLUENE), 3 (6.1), II

## 15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**  
· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

CAS: 71-43-2 Benzene

CAS: 110-54-3 Hexane

CAS: 108-88-3 Toluene

CAS: 110-82-7 Cyclohexane

CAS: 100-41-4 Ethylbenzene, Anhydrous, 99.8%

CAS: 77-73-6 3a,4,7,7a-tetrahydro-4,7-methanoindene

(Contd. on page 13)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 12)

<b>· TSCA (Toxic Substances Control Act):</b>		
Benzene	ACTIVE	
n-Heptane	ACTIVE	
Hexane	ACTIVE	
Toluene	ACTIVE	
Cyclohexane	ACTIVE	
Ethylbenzene, Anhydrous, 99.8%	ACTIVE	
Nonane, 99%	ACTIVE	
decane	ACTIVE	
dodecane	ACTIVE	
3a,4,7,7a-tetrahydro-4,7-methanoindene	ACTIVE	
<b>· Hazardous Air Pollutants</b>		
CAS: 71-43-2	Benzene	
CAS: 110-54-3	Hexane	
CAS: 108-88-3	Toluene	
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	
<b>· Proposition 65</b>		
<b>· Chemicals known to cause cancer:</b>		
CAS: 71-43-2	Benzene	
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	
<b>· Chemicals known to cause reproductive toxicity for females:</b>		
None of the ingredients is listed.		
<b>· Chemicals known to cause reproductive toxicity for males:</b>		
CAS: 71-43-2	Benzene	
CAS: 110-54-3	Hexane	
<b>· Chemicals known to cause developmental toxicity:</b>		
CAS: 71-43-2	Benzene	
CAS: 108-88-3	Toluene	
<b>· Carcinogenic categories</b>		
<b>· EPA (Environmental Protection Agency)</b>		
CAS: 71-43-2	Benzene	A, K/L
CAS: 142-82-5	n-Heptane	D
CAS: 110-54-3	Hexane	II
CAS: 108-88-3	Toluene	II
CAS: 110-82-7	Cyclohexane	I
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	D
<b>· TLV (Threshold Limit Value established by ACGIH)</b>		
CAS: 71-43-2	Benzene	A1
CAS: 108-88-3	Toluene	A4
CAS: 100-41-4	Ethylbenzene, Anhydrous, 99.8%	A3
<b>· NIOSH-Ca (National Institute for Occupational Safety and Health)</b>		
CAS: 71-43-2	Benzene	

(Contd. on page 14)

# Safety Data Sheet

acc. to OSHA HCS

Printing date 03/25/2019

Reviewed on 10/15/2015

**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 13)

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

*Benzene**Hexane**Toluene**Ethylbenzene, Anhydrous, 99.8%**n-Heptane**Cyclohexane**Nonane, 99%**decane*

- **Hazard statements**

*Highly flammable liquid and vapor.**Fatal in contact with skin.**Causes skin irritation.**Causes serious eye irritation.**May cause genetic defects.**May cause cancer.**Suspected of damaging fertility or the unborn child.**May cause drowsiness or dizziness.**Causes damage to organs through prolonged or repeated exposure. May cause damage to the hearing organs through prolonged or repeated exposure.**May be fatal if swallowed and enters airways.*

- **Precautionary statements**

*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.**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 dust/fume/gas/mist/vapors/spray.**Do not get in eyes, on skin, or on clothing.**Wash thoroughly after handling.**Do not eat, drink or smoke when using this product.**Use only outdoors or in a well-ventilated area.**Wear protective gloves/protective clothing/eye protection/face protection.**If swallowed: Immediately call a poison center/doctor.**Specific treatment (see on this label).**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.**Call a poison center/doctor if you feel unwell.*

(Contd. on page 15)

# Safety Data Sheet

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**Trade name: Piano Reference**  
**Standard #38**

(Contd. of page 14)

Get medical advice/attention if you feel unwell.  
Take off immediately all contaminated clothing and wash it before reuse.  
If skin irritation occurs: Get medical advice/attention.  
If eye irritation persists: Get medical advice/attention.  
In case of fire: Use for extinction: CO<sub>2</sub>, powder or water spray.  
Store in a well-ventilated place. Keep container tightly closed.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

- **National regulations:**
- **Additional classification according to Decree on Hazardous Materials:**  
Carcinogenic hazardous material group III (dangerous).
- **Information about limitation of use:**  
Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.  
Exceptions can be made by the authorities in certain cases.
- **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## 16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** Environment protection department.
- **Contact:**
- **Date of preparation / last revision**  
Revision 0.1, 06-11-2018 updated density results based on spreadsheet. STN 03/25/2019 / -
- **Abbreviations and acronyms:**  
IMDG: International Maritime Code for Dangerous Goods  
DOT: US Department of Transportation  
IATA: International Air Transport Association  
ACGIH: American Conference of Governmental Industrial Hygienists  
EINECS: European Inventory of Existing Commercial Chemical Substances  
ELINCS: European List of Notified Chemical Substances  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
NFPA: National Fire Protection Association (USA)  
HMIS: Hazardous Materials Identification System (USA)  
VOC: Volatile Organic Compounds (USA, EU)  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative  
NIOSH: National Institute for Occupational Safety  
OSHA: Occupational Safety & Health  
TLV: Threshold Limit Value  
PEL: Permissible Exposure Limit  
REL: Recommended Exposure Limit  
BEI: Biological Exposure Limit  
Flam. Liq. 2: Flammable liquids – Category 2  
Acute Tox. 2: Acute toxicity – Category 2  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A  
Muta. 1B: Germ cell mutagenicity – Category 1B  
Carc. 1A: Carcinogenicity – Category 1A  
Repr. 2: Reproductive toxicity – Category 2  
STOT SE 3: Specific target organ toxicity (single exposure) – Category 3  
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1  
Asp. Tox. 1: Aspiration hazard – Category 1