# SAFETY DATA SHEET

F77A3

## Section 1. Identification

**Product name** : Quick Dry Enamel
Machine Tool Gray

**Product code** : F77A3

**Other means of identification** : Not available.

**Product type** : Liquid.

**Relevant identified uses of the substance or mixture and uses advised against**

Paint or paint related material.

**Manufacturer** : THE SHERWIN-WILLIAMS COMPANY
101 W. Prospect Avenue
Cleveland, OH 44115

**National contact** : Sherwin-Williams Canada Inc.
180 Brunel Road
Mississauga, Ontario L4Z 1T5 Canada

**Emergency telephone number of the company** : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

**Product Information Telephone Number** : US / Canada: 866-722-9710
Mexico: Not Available

**Transportation Emergency Telephone Number** : US / Canada: (800) 424-9300
Mexico: SETIQ 800-00-214-00 / 55-5559-1588 Available 24 hours and 365 days a year

## Section 2. Hazards identification

**Classification of the substance or mixture** : FLAMMABLE LIQUIDS - Category 2
SKIN CORROSION/IRRITATION - Category 2
SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A
CARCINOGENICITY - Category 1B
TOXIC TO REPRODUCTION - Category 2
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2
ASPIRATION HAZARD - Category 1

Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 12.3% (oral), 35.6% (dermal), 12.3% (inhalation)

**GHS label elements**

**Hazard pictograms** :



## Section 2. Hazards identification

**Signal word** : Danger

**Hazard statements** : Highly 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 cancer.
Suspected of damaging fertility or the unborn child.
May cause damage to organs through prolonged or repeated exposure.

**Precautionary statements**

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, protective clothing and eye or face protection. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical, ventilating or lighting equipment. Use non-sparking tools. Take action to prevent static discharges. Use only outdoors or in a well-ventilated area. Do not breathe vapor. Wash thoroughly after handling.

**Response** : IF exposed or concerned: Get medical advice or attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor if you feel unwell. IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF ON SKIN: Wash with plenty of water. If skin irritation occurs: Get medical advice or attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice or attention.

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

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements**

DELAYED EFFECTS FROM LONG TERM OVEREXPOSURE. Contains solvents which can cause permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents can be harmful or fatal. WARNING: This product contains chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. FOR INDUSTRIAL USE ONLY.

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).

Please refer to the SDS for additional information. Keep out of reach of children. Do not transfer contents to other containers for storage.

**Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

**Other means of identification** : Not available.

**CAS number/other identifiers**

# Section 3. Composition/information on ingredients

| Ingredient name | % by weight | CAS number |
|---|---|---|
| Toluene | 22.08 | 108-88-3 |
| Xylene, mixed isomers | 17.19 | 1330-20-7 |
| Lt. Aliphatic Hydrocarbon Solvent | 12.31 | 64742-89-8 |
| Titanium Dioxide | 5 | 13463-67-7 |
| Ethylbenzene | 3.07 | 100-41-4 |
| Light Aromatic Hydrocarbons | 2.37 | 64742-95-6 |
| trimethylbenzene | 1.24 | 25551-13-7 |
| Heavy Aromatic Naphtha | 0.82 | 64742-94-5 |
| 1,2,4-Trimethylbenzene | 0.53 | 95-63-6 |
| 1,3,5-Trimethylbenzene | 0.53 | 108-67-8 |
| Light Aliphatic Hydrocarbon | 0.31 | 64742-47-8 |
| Hydrotreated Heavy Petroleum Naphtha | 0.25 | 64742-48-9 |
| Carbon Black | 0.24 | 1333-86-4 |
| Cumene | 0.18 | 98-82-8 |
| Calcium 2-Ethylhexanoate | 0.16 | 136-51-6 |
| 1,2,3-Trimethylbenzene | 0.15 | 526-73-8 |
| Naphthalene | 0.13 | 91-20-3 |
| Styrene | 0.12 | 100-42-5 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

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

# Section 4. First aid measures

## Description of necessary first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

## Most important symptoms/effects, acute and delayed

### Potential acute health effects

# Section 4. First aid measures

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

## Over-exposure signs/symptoms

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

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

**Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

**Specific treatments** : No specific treatment.

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

**See toxicological information (Section 11)**

# Section 5. Fire-fighting measures

## Extinguishing media

**Suitable extinguishing media** : Use dry chemical, $CO_2$, water spray (fog) or foam.

**Unsuitable extinguishing media** : Do not use water jet.

## Section 5. Fire-fighting measures

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

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

**Remark** : Flammable liquid.

## Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).**

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up**

**Small spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

# Section 7. Handling and storage

## Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

**Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

# Section 8. Exposure controls/personal protection

## Control parameters

### Occupational exposure limits (OSHA United States)

| Ingredient name | CAS # | Exposure limits |
|---|---|---|
| Toluene | 108-88-3 | **OSHA PEL Z2 (United States, 2/2013).**<br>TWA: 200 ppm 8 hours.<br>CEIL: 300 ppm<br>AMP: 500 ppm 10 minutes.<br>**NIOSH REL (United States, 10/2020).**<br>TWA: 100 ppm 10 hours.<br>TWA: 375 mg/m³ 10 hours.<br>STEL: 150 ppm 15 minutes.<br>STEL: 560 mg/m³ 15 minutes.<br>**ACGIH TLV (United States, 1/2023).**<br>**Ototoxicant.**<br>TWA: 20 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | **OSHA PEL (United States, 5/2018).**<br>**[Xylenes (o-, m-, p-isomers)]**<br>TWA: 100 ppm 8 hours.<br>TWA: 435 mg/m³ 8 hours.<br>**ACGIH TLV (United States, 1/2023). [p-xylene and mixtures containing p-xylene]**<br>**Ototoxicant.**<br>TWA: 20 ppm 8 hours. |
| Lt. Aliphatic Hydrocarbon Solvent | 64742-89-8 | None. |
| Titanium Dioxide | 13463-67-7 | **OSHA PEL (United States, 5/2018).**<br>TWA: 15 mg/m³ 8 hours. Form: Total dust |

## Section 8. Exposure controls/personal protection

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|---|---|---|
| | | **ACGIH TLV (United States, 1/2023).**<br>TWA: 2.5 mg/m³ 8 hours. Form: respirable fraction, finescale particles |
| Ethylbenzene | 100-41-4 | **ACGIH TLV (United States, 1/2023).**<br>**Ototoxicant.**<br>TWA: 20 ppm 8 hours.<br>**NIOSH REL (United States, 10/2020).**<br>TWA: 100 ppm 10 hours.<br>TWA: 435 mg/m³ 10 hours.<br>STEL: 125 ppm 15 minutes.<br>STEL: 545 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 5/2018).**<br>TWA: 100 ppm 8 hours.<br>TWA: 435 mg/m³ 8 hours. |
| Light Aromatic Hydrocarbons | 64742-95-6 | None. |
| trimethylbenzene | 25551-13-7 | **ACGIH TLV (United States, 1/2023).**<br>**[trimethyl benzene, isomers]**<br>TWA: 10 ppm 8 hours. |
| Heavy Aromatic Naphtha | 64742-94-5 | None. |
| 1,2,4-Trimethylbenzene | 95-63-6 | **NIOSH REL (United States, 10/2020).**<br>TWA: 25 ppm 10 hours.<br>TWA: 125 mg/m³ 10 hours.<br>**ACGIH TLV (United States, 1/2023).**<br>TWA: 10 ppm 8 hours. |
| 1,3,5-Trimethylbenzene | 108-67-8 | **ACGIH TLV (United States, 1/2023).**<br>**[trimethyl benzene, isomers]**<br>TWA: 10 ppm 8 hours.<br>**NIOSH REL (United States, 10/2020).**<br>TWA: 25 ppm 10 hours.<br>TWA: 125 mg/m³ 10 hours. |
| Light Aliphatic Hydrocarbon | 64742-47-8 | **ACGIH TLV (United States, 1/2023).**<br>**[Kerosene as total hydrocarbon vapor]**<br>**Absorbed through skin.**<br>TWA: 200 mg/m³, (as total hydrocarbon vapor) 8 hours. |
| Hydrotreated Heavy Petroleum Naphtha | 64742-48-9 | None. |
| Carbon Black | 1333-86-4 | **NIOSH REL (United States, 10/2020).**<br>TWA: 3.5 mg/m³ 10 hours.<br>**OSHA PEL (United States, 5/2018).**<br>TWA: 3.5 mg/m³ 8 hours.<br>**ACGIH TLV (United States, 1/2023).**<br>TWA: 3 mg/m³ 8 hours. Form: Inhalable fraction |
| Cumene | 98-82-8 | **ACGIH TLV (United States, 1/2023).**<br>TWA: 5 ppm 8 hours.<br>**NIOSH REL (United States, 10/2020).**<br>**Absorbed through skin.**<br>TWA: 50 ppm 10 hours.<br>TWA: 245 mg/m³ 10 hours.<br>**OSHA PEL (United States, 5/2018).**<br>**Absorbed through skin.**<br>TWA: 50 ppm 8 hours.<br>TWA: 245 mg/m³ 8 hours. |
| Calcium 2-Ethylhexanoate | 136-51-6 | None. |
| 1,2,3-Trimethylbenzene | 526-73-8 | **ACGIH TLV (United States, 1/2023).**<br>**[trimethyl benzene, isomers]**<br>TWA: 10 ppm 8 hours. |

## Section 8. Exposure controls/personal protection

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|---|---|---|
| | | **NIOSH REL (United States, 10/2020).**<br>TWA: 25 ppm 10 hours.<br>TWA: 125 mg/m³ 10 hours. |
| Naphthalene | 91-20-3 | **ACGIH TLV (United States, 1/2023). Absorbed through skin.**<br>TWA: 10 ppm 8 hours.<br>TWA: 52 mg/m³ 8 hours.<br>**NIOSH REL (United States, 10/2020).**<br>TWA: 10 ppm 10 hours.<br>TWA: 50 mg/m³ 10 hours.<br>STEL: 15 ppm 15 minutes.<br>STEL: 75 mg/m³ 15 minutes.<br>**OSHA PEL (United States, 5/2018).**<br>TWA: 10 ppm 8 hours.<br>TWA: 50 mg/m³ 8 hours. |
| Styrene | 100-42-5 | **ACGIH TLV (United States, 1/2023). Ototoxicant.**<br>TWA: 10 ppm 8 hours.<br>STEL: 20 ppm 15 minutes.<br>**OSHA PEL Z2 (United States, 2/2013).**<br>TWA: 100 ppm 8 hours.<br>CEIL: 200 ppm<br>AMP: 600 ppm 5 minutes.<br>**NIOSH REL (United States, 10/2020).**<br>TWA: 50 ppm 10 hours.<br>TWA: 215 mg/m³ 10 hours.<br>STEL: 100 ppm 15 minutes.<br>STEL: 425 mg/m³ 15 minutes. |

**Occupational exposure limits (Canada)**

| Ingredient name | CAS # | Exposure limits |
|---|---|---|
| Toluene | 108-88-3 | **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.**<br>8 hrs OEL: 50 ppm 8 hours.<br>8 hrs OEL: 188 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2022).**<br>TWA: 20 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 20 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 20 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.**<br>STEL: 60 ppm 15 minutes.<br>TWA: 50 ppm 8 hours. |
| Xylene | 1330-20-7 | **CA Alberta Provincial (Canada, 6/2018). [Dimethylbenzene (o,m & p isomers)]**<br>8 hrs OEL: 100 ppm 8 hours.<br>15 min OEL: 651 mg/m³ 15 minutes.<br>15 min OEL: 150 ppm 15 minutes.<br>8 hrs OEL: 434 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2022). [Xylene (o, m & p isomers)]**<br>TWA: 100 ppm 8 hours.<br>STEL: 150 ppm 15 minutes. |

## Section 8. Exposure controls/personal protection

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|---|---|---|
| | | **CA Quebec Provincial (Canada, 6/2022). [Xylene (o-,m-,p- isomers)]**<br>TWAEV: 100 ppm 8 hours.<br>TWAEV: 434 mg/m³ 8 hours.<br>STEV: 150 ppm 15 minutes.<br>STEV: 651 mg/m³ 15 minutes.<br>**CA Ontario Provincial (Canada, 6/2019). [Xylene (o-, m-, p-isomers)]**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013). [Xylene (o, m-, p-isomers)]**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | **CA Alberta Provincial (Canada, 6/2018).**<br>8 hrs OEL: 100 ppm 8 hours.<br>8 hrs OEL: 434 mg/m³ 8 hours.<br>15 min OEL: 543 mg/m³ 15 minutes.<br>15 min OEL: 125 ppm 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2022).**<br>TWA: 20 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 20 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 20 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 125 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| Trimethylbenzene | 25551-13-7 | **CA Alberta Provincial (Canada, 6/2018). [Trimethyl benzene (mixed isomers)]**<br>8 hrs OEL: 123 mg/m³ 8 hours.<br>8 hrs OEL: 25 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2022). [Trimethyl benzene (mixed isomers)]**<br>TWA: 25 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022). [Trimethyl benzene (mixture of isomers)] Skin sensitizer. Inhalation sensitizer.**<br>TWAEV: 25 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019). [Trimethyl benzene (mixed isomers)]**<br>TWA: 25 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013). [Trimethyl benzene mixed isomer]**<br>STEL: 30 ppm 15 minutes.<br>TWA: 25 ppm 8 hours. |
| Petroleum refining, hydrotreated light distillate | 64742-47-8 | **CA British Columbia Provincial (Canada, 6/2022). [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin. Notes: Application restricted to conditions in which there are negligible aerosol exposures.**<br>TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. |

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| | | **CA Alberta Provincial (Canada, 6/2018). [Kerosene/Jet fuels as total hydrocarbon vapour] Absorbed through skin.**<br>8 hrs OEL: 200 mg/m³, (as total hydrocarbon vapour) 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.**<br>TWA: 200 mg/m³, (as total hydrocarbon vapour) 8 hours. |
| Carbon black | 1333-86-4 | **CA British Columbia Provincial (Canada, 6/2022).**<br>TWA: 3 mg/m³ 8 hours. Form: Inhalable<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 3 mg/m³ 8 hours. Form: Inhalable particulate matter.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 3 mg/m³ 8 hours. Form: inhalable dust<br>**CA Alberta Provincial (Canada, 6/2018).**<br>8 hrs OEL: 3.5 mg/m³ 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 7 mg/m³ 15 minutes.<br>TWA: 3.5 mg/m³ 8 hours. |
| Cumene | 98-82-8 | **CA Alberta Provincial (Canada, 6/2018).**<br>8 hrs OEL: 50 ppm 8 hours.<br>8 hrs OEL: 246 mg/m³ 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2022).**<br>TWA: 25 ppm 8 hours.<br>STEL: 75 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 50 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 50 ppm 8 hours.<br>TWAEV: 246 mg/m³ 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 74 ppm 15 minutes.<br>TWA: 50 ppm 8 hours. |
| Naphthalene | 91-20-3 | **CA Alberta Provincial (Canada, 6/2018). Absorbed through skin.**<br>15 min OEL: 15 ppm 15 minutes.<br>8 hrs OEL: 10 ppm 8 hours.<br>8 hrs OEL: 52 mg/m³ 8 hours.<br>15 min OEL: 79 mg/m³ 15 minutes.<br>**CA British Columbia Provincial (Canada, 6/2022). Absorbed through skin.**<br>TWA: 10 ppm 8 hours.<br>**CA Ontario Provincial (Canada, 6/2019). Absorbed through skin.**<br>TWA: 10 ppm 8 hours.<br>**CA Quebec Provincial (Canada, 6/2022). Absorbed through skin.**<br>TWAEV: 10 ppm 8 hours.<br>**CA Saskatchewan Provincial (Canada, 7/2013). Absorbed through skin.** |

| | | |
|---|---|---|
| | | STEL: 15 ppm 15 minutes.<br>TWA: 10 ppm 8 hours. |
| Vinyl benzene | 100-42-5 | **CA Alberta Provincial (Canada, 6/2018).**<br>15 min OEL: 40 ppm 15 minutes.<br>15 min OEL: 170 mg/m³ 15 minutes.<br>8 hrs OEL: 85 mg/m³ 8 hours.<br>8 hrs OEL: 20 ppm 8 hours.<br>**CA British Columbia Provincial (Canada, 6/2022).**<br>TWA: 20 ppm 8 hours.<br>STEL: 40 ppm 15 minutes.<br>**CA Ontario Provincial (Canada, 6/2019).**<br>TWA: 35 ppm 8 hours.<br>STEL: 100 ppm 15 minutes.<br>**CA Quebec Provincial (Canada, 6/2022).**<br>TWAEV: 50 ppm 8 hours.<br>STEV: 75 ppm 15 minutes.<br>**CA Saskatchewan Provincial (Canada, 7/2013).**<br>STEL: 40 ppm 15 minutes.<br>TWA: 20 ppm 8 hours. |

**Occupational exposure limits (Mexico)**

| Ingredient name | CAS # | Exposure limits |
|---|---|---|
| Toluene | 108-88-3 | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 20 ppm 8 hours. |
| Xylene, mixed isomers | 1330-20-7 | **NOM-010-STPS-2014 (Mexico, 4/2016). [Xylenes (mixed)]**<br>STEL: 150 ppm 15 minutes.<br>TWA: 100 ppm 8 hours. |
| Ethylbenzene | 100-41-4 | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 20 ppm 8 hours. |
| trimethylbenzene | 25551-13-7 | **NOM-010-STPS-2014 (Mexico, 4/2016). [Trimethyl benzene, mixed isomers]**<br>TWA: 25 ppm 8 hours. |
| Cumene | 98-82-8 | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 50 ppm 8 hours. |
| Naphthalene | 91-20-3 | **NOM-010-STPS-2014 (Mexico, 4/2016). Absorbed through skin.**<br>TWA: 10 ppm 8 hours.<br>STEL: 15 ppm 15 minutes. |
| Styrene | 100-42-5 | **NOM-010-STPS-2014 (Mexico, 4/2016).**<br>TWA: 20 ppm 8 hours.<br>STEL: 40 ppm 15 minutes. |

**Biological exposure indices (United States)**

| Ingredient name | Exposure indices |
|---|---|
| Toluene | **ACGIH BEI (United States, 1/2023)**<br>BEI: 0.03 mg/l, toluene [in urine]. Sampling time: end of shift.<br>BEI: 0.3 mg/g creatinine, o-cresol [in urine]. Sampling time: end of shift.<br>BEI: 0.02 mg/l, toluene [in blood]. Sampling time: prior to last shift of workweek. |
| Xylene, mixed isomers | **ACGIH BEI (United States, 1/2023) [xylenes** |

| | |
|---|---|
| | **(technical or commercial grade)]**<br>BEI: 1.5 g/g creatinine, methylhippuric acids [in urine]. Sampling time: end of shift. |
| Ethylbenzene | **ACGIH BEI (United States, 1/2023)**<br>BEI: 0.15 g/g creatinine, sum of mandelic acid and phenylglyoxylic acid [in urine]. Sampling time: end of shift. |
| Naphthalene | **ACGIH BEI (United States, 1/2023)**<br>BEI: Nonquantitative: Biological monitoring should be considered for this compound based on the review; however, a specific BEI® could not be determined due to insufficient data., 1-naphthol + 2-naphthol [(sample not specified)]. Sampling time: end of shift. |
| Styrene | **ACGIH BEI (United States, 1/2023)**<br>BEI: 150 mg/g creatinine, mandelic acid plus phenylglyoxylic acid [in urine]. Sampling time: end of shift.<br>BEI: 20 µg/l, styrene [in urine]. Sampling time: end of shift. |

**Biological exposure indices (Canada)**

No exposure indices known.

**Biological exposure indices (Mexico)**

| Ingredient name | Exposure indices |
|---|---|
| Toluene | **Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)**<br>BEI: 0.05 mg/L, toluene [in blood]. Sampling time: sample time not specified.<br>BEI: 1.6 g/g creatinine [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu; non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], hippuric acid [in urine]. Sampling time: at the end of the work shift.<br>BEI: 0.5 mg/L [Basal level.The determinant may be present in the biological sample obtained from subjects who have not been occupationally exposed, at a concentration that could affect the interpretation of the results. These background levels are included in the valu], o-cresol [in urine]. Sampling time: at the end of the work shift. |
| Xylene, mixed isomers | **Official Mexican STANDARD NOM-** |

| | |
|---|---|
| | **047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012) [xylenes (technical or commercial grade)]**<br>BEI: 1.5 g/g creatinine, methyl hippuric acids [in urine]. Sampling time: at the end of the work shift. |
| Ethylbenzene | **Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)**<br>BEI: 0.7 g/g creatinine [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.; semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], Sum of mandelic acid and acid phenylglyoxylic [in urine]. Sampling time: at the end of the shift at the end of the work week.<br>BEI: semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible., ethylbenzene [in exhaled air]. Sampling time: uncritical. |
| Styrene | **Official Mexican STANDARD NOM-047-SSA1-2011, Environmental Health-Biological exposure indices for personnel occupationally exposed to chemical substances. (Mexico, 6/2012)**<br>BEI: 0.2 mg/L [semi-quantitative.The biological determinant is an indicator of chemical exposure, but the quantitative interpretation of the measure is ambiguous. These biological determinants should be used as a screening test if a quantitative test is not possible.], styrene [in venous blood]. Sampling time: at the end of the work shift.<br>BEI: 400 mg/g creatinine [non-specific.The determinant is nonspecific, since it can be found after exposure to other chemicals.], mandelic Acid plus Phenylglyoxylic Acid [in urine]. Sampling time: at the end of the work shift. |

## Section 8. Exposure controls/personal protection

**Appropriate engineering controls** : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

**Environmental exposure controls** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).**

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

**Individual protection measures**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

**Skin protection**

**Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

**Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.

**Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

**Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

**Appearance**

**Physical state** : Liquid.

**Color** : Not available.

**Odor** : Not available.

**Odor threshold** : Not available.

**pH** : Not applicable.

**Melting point/freezing point** : Not available.

## Section 9. Physical and chemical properties

**Boiling point, initial boiling point, and boiling range** : 105°C (221°F)

**Flash point** : Closed cup: 2°C (35.6°F) [Pensky-Martens Closed Cup]

**Evaporation rate** : 2 (butyl acetate = 1)

**Flammability** : Flammable liquid.

**Lower and upper explosion limit/flammability limit** : Lower: 0.7%
Upper: 7%

**Vapor pressure** : 2.9 kPa (22 mm Hg)

**Relative vapor density** : 3.1 [Air = 1]

**Relative density** : 0.94

**Solubility(ies)** :

| Media | Result |
|---|---|
| cold water | Not soluble |

**Partition coefficient: n-octanol/water** : Not applicable.

**Auto-ignition temperature** : Not available.

**Decomposition temperature** : Not available.

**Viscosity** : Kinematic (40°C (104°F)): <20.5 $mm^2/s$ (<20.5 cSt)

**Molecular weight** : Not applicable.

**Heat of combustion** : 20.325 kJ/g

## Section 10. Stability and reactivity

**Reactivity** : No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.

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

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

## Section 11. Toxicological information

**Information on toxicological effects**

**Acute toxicity**

# Section 11. Toxicological information

| Product/ingredient name | Result | Species | Dose | Exposure |
|---|---|---|---|---|
| Toluene | LC50 Inhalation Vapor | Rat | 49 g/m³ | 4 hours |
| | LD50 Oral | Rat | 636 mg/kg | - |
| Xylene, mixed isomers | LC50 Inhalation Gas. | Rat | 6700 ppm | 4 hours |
| | LD50 Oral | Rat | 4300 mg/kg | - |
| Ethylbenzene | LD50 Dermal | Rabbit | >5000 mg/kg | - |
| | LD50 Oral | Rat | 3500 mg/kg | - |
| Light Aromatic Hydrocarbons | LD50 Oral | Rat | 8400 mg/kg | - |
| trimethylbenzene | LD50 Oral | Rat | 8970 mg/kg | - |
| 1,2,4-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 18000 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 5 g/kg | - |
| 1,3,5-Trimethylbenzene | LC50 Inhalation Vapor | Rat | 24000 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 5000 mg/kg | - |
| Hydrotreated Heavy Petroleum Naphtha | LC50 Inhalation Vapor | Rat | 8500 mg/m³ | 4 hours |
| | LD50 Oral | Rat | >6 g/kg | - |
| Carbon Black | LD50 Oral | Rat | >15400 mg/kg | - |
| Cumene | LC50 Inhalation Vapor | Rat | 39000 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 1400 mg/kg | - |
| Naphthalene | LD50 Dermal | Rabbit | >20 g/kg | - |
| | LD50 Oral | Rat | 490 mg/kg | - |
| Styrene | LC50 Inhalation Gas. | Rat | 2770 ppm | 4 hours |
| | LC50 Inhalation Vapor | Rat | 11800 mg/m³ | 4 hours |
| | LD50 Oral | Rat | 2650 mg/kg | - |

**Irritation/Corrosion**

| Product/ingredient name | Result | Species | Score | Exposure | Observation |
|---|---|---|---|---|---|
| Toluene | Eyes - Mild irritant | Rabbit | - | 0.5 minutes 100 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 870 ug | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 2 mg | - |
| | Skin - Mild irritant | Pig | - | 24 hours 250 uL | - |
| | Skin - Mild irritant | Rabbit | - | 435 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 500 mg | - |
| Xylene, mixed isomers | Eyes - Mild irritant | Rabbit | - | 87 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 24 hours 5 mg | - |
| | Skin - Mild irritant | Rat | - | 8 hours 60 uL | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Titanium Dioxide | Skin - Mild irritant | Human | - | 72 hours 300 ug I | - |
| Ethylbenzene | Eyes - Severe irritant | Rabbit | - | 500 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 15 mg | - |
| Light Aromatic Hydrocarbons | Eyes - Mild irritant | Rabbit | - | 24 hours 100 uL | - |
| trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 500 mg | - |
| Heavy Aromatic Naphtha | Skin - Mild irritant | Rabbit | - | 24 hours 500 uL | - |

| | | | | | |
|---|---|---|---|---|---|
| 1,3,5-Trimethylbenzene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 20 mg | - |
| Cumene | Eyes - Mild irritant | Rabbit | - | 24 hours 500 mg | - |
| | Eyes - Mild irritant | Rabbit | - | 86 mg | - |
| | Skin - Mild irritant | Rabbit | - | 24 hours 10 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| Naphthalene | Skin - Mild irritant | Rabbit | - | 495 mg | - |
| | Skin - Severe irritant | Rabbit | - | 24 hours 0.05 Ml | - |
| Styrene | Eyes - Mild irritant | Human | - | 50 ppm | - |
| | Eyes - Moderate irritant | Rabbit | - | 24 hours 100 mg | - |
| | Eyes - Severe irritant | Rabbit | - | 100 mg | - |
| | Skin - Mild irritant | Rabbit | - | 500 mg | - |
| | Skin - Moderate irritant | Rabbit | - | 100 % | - |

## Sensitization

Not available.

## Mutagenicity

Not available.

## Carcinogenicity

Not available.

## Classification

| Product/ingredient name | OSHA | IARC | NTP |
|---|---|---|---|
| Toluene | - | 3 | - |
| Xylene, mixed isomers | - | 3 | - |
| Titanium Dioxide | - | 2B | - |
| Ethylbenzene | - | 2B | - |
| Carbon Black | - | 2B | - |
| Cumene | - | 2B | Reasonably anticipated to be a human carcinogen. |
| Naphthalene | - | 2B | Reasonably anticipated to be a human carcinogen. |
| Styrene | - | 2A | Reasonably anticipated to be a human carcinogen. |

## Reproductive toxicity

Not available.

## Teratogenicity

Not available.

## Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Toluene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Xylene, mixed isomers | Category 3 | - | Respiratory tract irritation |
| Lt. Aliphatic Hydrocarbon Solvent | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |

| | | | |
|---|---|---|---|
| Ethylbenzene | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Light Aromatic Hydrocarbons | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Heavy Aromatic Naphtha | Category 3 | - | Narcotic effects |
| 1,2,4-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| 1,3,5-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| Light Aliphatic Hydrocarbon | Category 3 | - | Respiratory tract irritation |
| | Category 3 | | Narcotic effects |
| Cumene | Category 3 | - | Respiratory tract irritation |
| 1,2,3-Trimethylbenzene | Category 3 | - | Respiratory tract irritation |
| Styrene | Category 3 | - | Respiratory tract irritation |

**Specific target organ toxicity (repeated exposure)**

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Toluene | Category 2 | - | - |
| Xylene, mixed isomers | Category 2 | - | - |
| Lt. Aliphatic Hydrocarbon Solvent | Category 2 | - | - |
| Ethylbenzene | Category 2 | - | - |
| Light Aromatic Hydrocarbons | Category 2 | - | - |
| Light Aliphatic Hydrocarbon | Category 2 | - | - |
| Styrene | Category 1 | - | hearing organs |

**Aspiration hazard**

| Name | Result |
|---|---|
| Toluene | ASPIRATION HAZARD - Category 1 |
| Xylene, mixed isomers | ASPIRATION HAZARD - Category 1 |
| Lt. Aliphatic Hydrocarbon Solvent | ASPIRATION HAZARD - Category 1 |
| Ethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aromatic Hydrocarbons | ASPIRATION HAZARD - Category 1 |
| trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Heavy Aromatic Naphtha | ASPIRATION HAZARD - Category 1 |
| 1,2,4-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| 1,3,5-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Light Aliphatic Hydrocarbon | ASPIRATION HAZARD - Category 1 |
| Hydrotreated Heavy Petroleum Naphtha | ASPIRATION HAZARD - Category 1 |
| Cumene | ASPIRATION HAZARD - Category 1 |
| 1,2,3-Trimethylbenzene | ASPIRATION HAZARD - Category 1 |
| Naphthalene | ASPIRATION HAZARD - Category 1 |
| Styrene | ASPIRATION HAZARD - Category 1 |

**Information on the likely routes of exposure** : Not available.

**Potential acute health effects**

**Eye contact** : Causes serious eye irritation.

**Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness. May cause respiratory irritation.

# Section 11. Toxicological information

**Skin contact** : Causes skin irritation.

**Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

## Symptoms related to the physical, chemical and toxicological characteristics

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

**Inhalation** : Adverse symptoms may include the following:
respiratory tract irritation
coughing
nausea or vomiting
headache
drowsiness/fatigue
dizziness/vertigo
unconsciousness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Skin contact** : Adverse symptoms may include the following:
irritation
redness
reduced fetal weight
increase in fetal deaths
skeletal malformations

**Ingestion** : Adverse symptoms may include the following:
nausea or vomiting
reduced fetal weight
increase in fetal deaths
skeletal malformations

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

### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

Not available.

**General** : May cause damage to organs through prolonged or repeated exposure.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

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

**Teratogenicity** : Suspected of damaging the unborn child.

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

**Fertility effects** : Suspected of damaging fertility.

## Numerical measures of toxicity

# Section 11. Toxicological information

## Acute toxicity estimates

| Route | ATE value |
|---|---|
| Oral | 2084.61 mg/kg |
| Dermal | 4118.69 mg/kg |
| Inhalation (gases) | 34172.84 ppm |
| Inhalation (vapors) | 223.88 mg/l |

# Section 12. Ecological information

## Toxicity

| Product/ingredient name | Result | Species | Exposure |
|---|---|---|---|
| Toluene | Acute EC50 >433 ppm Marine water | Algae - *Skeletonema costatum* | 96 hours |
| | Acute EC50 11600 µg/l Fresh water | Crustaceans - *Gammarus pseudolimnaeus* - Adult | 48 hours |
| | Acute EC50 6000 µg/l Fresh water | Daphnia - *Daphnia magna* - Juvenile (Fledgling, Hatchling, Weanling) | 48 hours |
| | Acute LC50 5500 µg/l Fresh water | Fish - *Oncorhynchus kisutch* - Fry | 96 hours |
| | Chronic NOEC 1 mg/l Fresh water | Daphnia - *Daphnia magna* | 21 days |
| Xylene, mixed isomers | Acute LC50 8500 µg/l Marine water | Crustaceans - *Palaemonetes pugio* | 48 hours |
| | Acute LC50 13400 µg/l Fresh water | Fish - *Pimephales promelas* | 96 hours |
| Lt. Aliphatic Hydrocarbon Solvent | Acute LC50 >100000 ppm Fresh water | Fish - *Oncorhynchus mykiss* | 96 hours |
| Titanium Dioxide | Acute LC50 >1000000 µg/l Marine water | Fish - *Fundulus heteroclitus* | 96 hours |
| Ethylbenzene | Acute EC50 4900 µg/l Marine water | Algae - *Skeletonema costatum* | 72 hours |
| | Acute EC50 7700 µg/l Marine water | Algae - *Skeletonema costatum* | 96 hours |
| | Acute EC50 6.53 mg/l Marine water | Crustaceans - *Artemia sp.* - Nauplii | 48 hours |
| | Acute EC50 2.93 mg/l Fresh water | Daphnia - *Daphnia magna* - Neonate | 48 hours |
| | Acute LC50 4200 µg/l Fresh water | Fish - *Oncorhynchus mykiss* | 96 hours |
| trimethylbenzene | Acute LC50 5600 µg/l Marine water | Crustaceans - *Palaemonetes pugio* | 48 hours |
| 1,2,4-Trimethylbenzene | Acute LC50 4910 µg/l Marine water | Crustaceans - *Elasmopus pectenicrus* - Adult | 48 hours |
| | Acute LC50 7720 µg/l Fresh water | Fish - *Pimephales promelas* | 96 hours |
| 1,3,5-Trimethylbenzene | Acute LC50 13000 µg/l Marine water | Crustaceans - *Cancer magister* - Zoea | 48 hours |
| | Acute LC50 12520 µg/l Fresh water | Fish - *Carassius auratus* | 96 hours |
| | Chronic NOEC 0.4 mg/l Fresh water | Daphnia - *Daphnia magna* | 21 days |
| Light Aliphatic Hydrocarbon | Acute LC50 2200 µg/l Fresh water | Fish - *Lepomis macrochirus* | 4 days |
| Cumene | Acute EC50 7.4 mg/l Marine water | Crustaceans - *Artemia sp.* - Nauplii | 48 hours |
| | Acute EC50 10.6 mg/l Fresh water | Daphnia - *Daphnia magna* - Neonate | 48 hours |
| | Acute LC50 2700 µg/l Fresh water | Fish - *Oncorhynchus mykiss* | 96 hours |
| Naphthalene | Acute EC50 1.6 mg/l Fresh water | Daphnia - *Daphnia magna* - Neonate | 48 hours |
| | Acute LC50 2350 µg/l Marine water | Crustaceans - *Palaemonetes pugio* | 48 hours |
| | Acute LC50 213 µg/l Fresh water | Fish - *Melanotaenia fluviatilis* - Larvae | 96 hours |
| | Chronic NOEC 0.5 mg/l Marine water | Crustaceans - *Uca pugnax* - Adult | 3 weeks |

## Section 12. Ecological information

| | | | |
|---|---|---|---|
| Styrene | Chronic NOEC 1.5 mg/l Fresh water | Fish - *Oreochromis mossambicus* | 60 days |
| | Acute EC50 78000 µg/l Marine water | Algae - *Skeletonema costatum* | 96 hours |
| | Acute EC50 4700 µg/l Fresh water | Daphnia - *Daphnia magna* | 48 hours |
| | Acute LC50 52 mg/l Marine water | Crustaceans - *Artemia salina* | 48 hours |
| | Acute LC50 4020 µg/l Fresh water | Fish - *Pimephales promelas* | 96 hours |

### Persistence and degradability

| Product/ingredient name | Aquatic half-life | Photolysis | Biodegradability |
|---|---|---|---|
| Toluene | - | - | Readily |
| Xylene, mixed isomers | - | - | Readily |
| Ethylbenzene | - | - | Readily |
| Light Aromatic Hydrocarbons | - | - | Readily |

### Bioaccumulative potential

| Product/ingredient name | $LogP_{ow}$ | BCF | Potential |
|---|---|---|---|
| Toluene | - | 90 | Low |
| Xylene, mixed isomers | - | 8.1 to 25.9 | Low |
| Lt. Aliphatic Hydrocarbon Solvent | - | 10 to 2500 | High |
| Light Aromatic Hydrocarbons | - | 10 to 2500 | High |
| Heavy Aromatic Naphtha | - | 99 to 5780 | High |
| 1,2,4-Trimethylbenzene | - | 243 | Low |
| 1,3,5-Trimethylbenzene | - | 161 | Low |
| Hydrotreated Heavy Petroleum Naphtha | - | 10 to 2500 | High |
| Cumene | - | 35.48 | Low |
| Calcium 2-Ethylhexanoate | - | 2.96 | Low |
| 1,2,3-Trimethylbenzene | - | 194.98 | Low |
| Naphthalene | - | 36.5 to 168 | Low |
| Styrene | - | 13.49 | Low |

### Mobility in soil

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

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

## Section 13. Disposal considerations

**Disposal methods** : **This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact

## Section 13. Disposal considerations

with soil, waterways, drains and sewers.

## Section 14. Transport information

| | DOT Classification | TDG Classification | Mexico Classification | IATA | IMDG |
|---|---|---|---|---|---|
| **UN number** | UN1263 | UN1263 | UN1263 | UN1263 | UN1263 |
| **UN proper shipping name** | PAINT | PAINT | PAINT | PAINT | PAINT |
| **Transport hazard class(es)** | 3   | 3   | 3   | 3   | 3   |
| **Packing group** | II | II | II | II | II |
| **Environmental hazards** | No. | No. | No. | No. | No. |
| **Additional information** | - <br><br> **ERG No.** <br> 128 | Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.18-2.19 (Class 3). <br> **ERG No.** <br> 128 | - <br><br> **ERG No.** <br> 128 | - | **Emergency schedules** F-E, S-E |

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

**Transport in bulk according to IMO instruments** : Not available.

**Proper shipping name** : Not available.

# Section 15. Regulatory information

This product contains a component that is either subject to a CEPA ministerial condition or an existing/proposed SNAC (Significant New Activity).

## International regulations

### Montreal Protocol

Not listed.

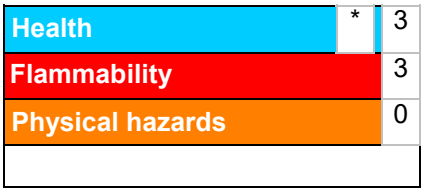
### Stockholm Convention on Persistent Organic Pollutants

Not listed.

**International lists** : **Australia inventory (AIIC)**: Not determined.
**China inventory (IECSC)**: Not determined.
**Japan inventory (CSCL)**: Not determined.
**Japan inventory (ISHL)**: Not determined.
**Korea inventory (KECI)**: Not determined.
**New Zealand Inventory of Chemicals (NZIoC)**: Not determined.
**Philippines inventory (PICCS)**: Not determined.
**Taiwan Chemical Substances Inventory (TCSI)**: Not determined.
**Thailand inventory**: Not determined.
**Turkey inventory**: Not determined.
**Vietnam inventory**: Not determined.

# Section 16. Other information

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




**The customer is responsible for determining the PPE code for this material. For more information on HMIS® Personal Protective Equipment (PPE) codes, consult the HMIS® Implementation Manual.**

**Caution: HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. Although HMIS® ratings and the associated label are not required on SDSs or products leaving a facility under 29 CFR 1910.1200, the preparer may choose to provide them. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered trademark and service mark of the American Coatings Association, Inc.**

## Procedure used to derive the classification

| Classification | Justification |
|---|---|
| FLAMMABLE LIQUIDS - Category 2 | On basis of test data |
| SKIN CORROSION/IRRITATION - Category 2 | Calculation method |
| SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2A | Calculation method |
| CARCINOGENICITY - Category 1B | Calculation method |
| TOXIC TO REPRODUCTION - Category 2 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 | Calculation method |
| SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 | Calculation method |
| ASPIRATION HAZARD - Category 1 | Calculation method |

## History

**Date of printing** : 1/22/2024

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# Section 16. Other information

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**Version** : 23

**Key to abbreviations** : ATE = Acute Toxicity Estimate
BCF = Bioconcentration Factor
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC = Intermediate Bulk Container
IMDG = International Maritime Dangerous Goods
LogPow = logarithm of the octanol/water partition coefficient
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
N/A = Not available
SGG = Segregation Group
UN = United Nations

**Indicates information that has changed from previously issued version.**

## Notice to reader

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