SAFETY DATA SHEET



Date of issue/Date of revision 1 June 2021

Version 19

Section 1. Identification

Product name : DARK RED

Product code : 438

Other means of

: Not available.

identification Product type

: Liquid.

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

Product use : Industrial applications.

Use of the substance/

mixture

: Coating. Paints. Painting-related materials.

Uses advised against : Not applicable.

Manufacturer : PPG Industries, Inc.

One PPG Place,

Pittsburgh, PA 15272 : (412) 434-4515 (U.S.)

Emergency telephone

<u>number</u>

(514) 645-1320 (Canada)

SETIQ Interior de la República: 800-00-214-00 (México) SETIQ Ciudad de México: (55) 5559-1588 (México)

Technical Phone Number : (740) 363-9610 (DELAWARE, OH) 8:00 a.m. - 5:00 p.m. EST

Section 2. Hazards identification

OSHA/HCS status

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

Classification of the substance or mixture

: FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2

SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown acute toxicity: 14.1%

(oral), 27.5% (dermal), 23.1% (inhalation)

GHS label elements

United States Page: 1/20

Product name DARK RED

Section 2. Hazards identification

Hazard pictograms









Signal word

Hazard statements

: Danger

: Highly flammable liquid and vapor.

Causes skin irritation.

Causes serious eye damage.

May cause drowsiness or dizziness.

May cause cancer.

May damage 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 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. Immediately call a POISON CENTER or doctor.

Photosensitive agents: In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

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

: Sanding and grinding dusts may be harmful if inhaled. Dried Film of This Paint May Be Harmful If Eaten or Chewed. Contains lead. Exposure to lead dust and fumes adversely affects blood and blood forming tissues, kidneys, liver, the central/peripheral nervous systems and male/female reproductive organs. Lead exposure causes adverse developmental effects including brain damage in children and unborn fetuses. Repeated exposure to high vapor concentrations may cause irritation of the respiratory system and permanent brain and nervous system damage. Inhalation of vapor/aerosol concentrations above the recommended exposure limits causes headaches, drowsiness and nausea and may lead to unconsciousness or death. NTP, IARC and OSHA have classified chromium (+6) compounds as carcinogenic. Avoid contact with skin and clothing. Wash thoroughly after handling. Emits toxic fumes when heated.

United States Page: 2/20

Product name DARK RED

Section 2. Hazards identification

Hazards not otherwise classified

: Prolonged or repeated contact may dry skin and cause irritation.

Section 3. Composition/information on ingredients

Substance/mixture : Mixture Product name : DARK RED

Ingredient name	%	CAS number
e thanol	≥10 - ≤20	64-17-5
butan-1-ol	≥5.0 - ≤11	71-36-3
toluene	≥5.0 - ≤10	108-88-3
Solvent naphtha (petroleum), light aliph.	≥5.0 - ≤8.2	64742-89-8
methylcyclohexane	≥5.0 - ≤10	108-87-2
heptane	≥5.0 - ≤10	142-82-5
xylene	≥1.0 - ≤4.8	1330-20-7
Talc, not containing asbestiform fibers	≥1.0 - ≤3.4	14807-96-6
2-butoxyethanol	≥1.0 - ≤3.5	111-76-2
Lead chromate molybdate sulfate red	≥1.0 - ≤5.0	12656-85-8
ethyl acetate	≥1.0 - ≤5.0	141-78-6
ethylbenzene	<1.0	100-41-4
4-methylpentan-2-one	<1.0	108-10-1
lead massive	<0.10	7439-92-1

SUB codes represent substances without registered CAS Numbers.

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 as hazardous to health or the environment and hence require reporting in this section.

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

Section 4. First aid measures

If ingestion, irritation, any type of overexposure or symptoms of overexposure occur during or persists after use of this product, contact a POISON CONTROL CENTER, EMERGENCY ROOM OR PHYSICIAN immediately; have Safety Data Sheet information available. Never give anything by mouth to an unconscious or convulsing person.

Description of necessary first aid measures

Eve contact

 Check for and remove any contact lenses. Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Seek immediate medical attention.
 In case of accidental eye contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation or blistering occurs after contact.

Inhalation

: Remove to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel.

Skin contact

Remove contaminated clothing and shoes. Wash skin thoroughly with soap and water or use recognized skin cleanser. Do NOT use solvents or thinners. In case of accidental skin contact, avoid direct exposure to the sun or other sources of UV light as severe irritation including burns may result. These reactions can be delayed – get medical attention if pain, irritation, rash or blistering occurs after contact.

United States Page: 3/20

Product name DARK RED

Section 4. First aid measures

Ingestion: If swallowed, seek medical advice immediately and show this container or label. Keep

person warm and at rest. Do NOT induce vomiting.

Most important symptoms/effects, acute and delayed

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Causes skin irritation. Defatting to the skin.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

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:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations

Ingestion: Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

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

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed.

The exposed person may need to be kept under medical surveillance for 48 hours.

Specific treatments: No specific treatment.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. If it is

suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water

before removing it, or wear gloves.

See toxicological information (Section 11)

United States Page: 4/20

Product name DARK RED

Section 4. First aid measures

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing

media

Unsuitable extinguishing

media

: Use dry chemical, CO2, water spray (fog) or foam.

: Do not use water jet.

Specific hazards arising from the chemical

: Highly flammable liquid and vapor. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Hazardous thermal decomposition products

: Decomposition products may include the following materials:

carbon oxides nitrogen oxides sulfur oxides

halogenated compounds metal oxide/oxides oxides of lead

Special protective actions for fire-fighters

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

Special protective equipment for fire-fighters

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

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

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

For emergency responders

If 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

: 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.

United States Page: 5/20

Product name DARK RED

Section 6. Accidental release measures

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 ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.

Special precautions

: Ingestion of product or cured coating may be harmful. Do not apply on toys and other children's articles, furniture, or interior surfaces of any dwelling or facility which may be occupied or used by children. Do not apply on exterior surfaces of dwelling units, such as window sills, porches, stairs, or railings, to which children may be commonly exposed. If this material is part of a multiple component system, read the Safety Data Sheet(s) for the other component or components before blending as the resulting mixture may have the hazards of all of its parts.

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

: Do not store below the following temperature: 5°C (41°F). 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.

United States Page: 6/20

Date of issue 1 June 2021 Version 19

Product code 438

Product name DARK RED

Section 8. Exposure controls/personal protection

Control parameters

Occupational exposure limits

STEL: 1000 ppm 15 minutes. OSHA PEL (United States, 5/2018). TWA: 1900 mg/m² 8 hours. ACGIH TIV (United States, 5/2020). TWA: 20 ppm 8 hours. SSHA PEL (United States, 5/2018). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 mg/m² 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TIV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TIV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 200 mg/m² 8 hours. OSHA PEL (United States, 3/2020). STEL: 2050 mg/m² 15 minutes. TWA: 500 ppm 8 hours. ACGIH TIV (United States, 3/2020). STEL: 2050 mg/m² 8 hours. TWA: 400 ppm 8 hours. ACGIH TIV (United States, 3/2020). STEL: 2050 mg/m² 8 hours. ACGIH TIV (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 2000 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 ppm 8 hours. ACGIH TIV (United States, 5/2018). TWA: 300 ppm 8 hours. ACGIH TIV (United States, 5/2018). TWA: 434 mg/m² 8 hours. TWA: 435 mg/m² 8 hours. TWA: 435 mg/m² 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours. OSHA PEL (United States, 5/2020). TWA: 2 mg/m² 8 hours.	Ingredient name	Exposure limits
butan-1-ol	e thanol	ACGIH TLV (United States, 3/2020).
TWA: 1900 mg/m³ 8 hours. TWA: 1000 pm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 pm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 300 mg/m³ 8 hours. TWA: 300 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 2050 ppm 15 minutes. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 ho		
butan-1-ol TWA: 1000 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 8 hours. CSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 500 ppm 15 minutes. STEL: 500 ppm 15 minutes. STEL: 500 ppm 18 hours. ACGIH TLV (United States, 3/2020). STEL: 500 ppm 18 hours. TWA: 400 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 550 ppm 19 minutes. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 551 mg/m³ 8 hours. TWA: 430 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 20 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL 2 (United States, 3/2020). TWA: 2 mg/m³ 8 hours.		OSHA PEL (United States, 5/2018).
ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL 2Z (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 500 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 500 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 500 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 434 mg/m³ 8 hours. TWA: 500 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 8 hours. TWA: 434 mg/m³ 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. SOHA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 200 ppm 8 hours.		TWA: 1900 mg/m ³ 8 hours.
TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL 22 (United States, 2/2013). AMP: 500 ppm 10 minutes. GEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. Methylcyclohexane ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 18 hours. TWA: 500 ppm 18 hours. TWA: 610 ppm 18		TWA: 1000 ppm 8 hours.
oSHA PEL (United States, 5/2018). TWA: 300 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 1 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 201 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 2050 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 436 mg/m³ 8 hours. TWA: 436 mg/m³ 8 hours. TWA: 436 mg/m³ 8 hours. TWA: 20 ppm 8 hours. SOSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours.	butan-1-ol	ACGIH TLV (United States, 3/2020).
toluene CEIL: 300 ppm 10 minutes. CEIL: 300 ppm 1 Twix: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. SoShA PEIL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 15 minutes. STEIL: 2050 mg/m³ 15 minutes. STEIL: 500 ppm 15 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 436 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours.		TWA: 20 ppm 8 hours.
toluene TWA: 100 ppm 8 hours. OSHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEII: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 15 minutes. STEL: 2050 mg/m³ 8 hours. TWA: 1640 mg/m³ 8 hours. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. FTWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours.		OSHA PEL (United States, 5/2018).
SHA PEL Z2 (United States, 2/2013). AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 5000 mg/m³ 8 hours. TWA: 5000 mg/m³ 8 hours. TWA: 5000 ppm 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 4000 ppm 8 hours. TWA: 4000 ppm 15 minutes. TWA: 4000 ppm 15 minutes. TWA: 4000 ppm 8 hours. TWA: 5000 ppm 15 minutes. TWA: 5000 ppm 15 minutes. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 436 mg/m³ 15 minutes. TWA: 437 mg/m³ 8 hours. TWA: 438 mg/m³ 8 hours. TWA: 439 mg/m³ 8 hours. TWA: 430 ppm 8 hours. TWA: 430 ppm 8 hours. TWA: 430 ppm 8 hours. TWA: 2000 mg/m³ 8 hours.		
AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 15 minutes. STEL: 2050 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 2 mg/m³ 8 hours.		TWA: 100 ppm 8 hours.
AMP: 500 ppm 10 minutes. CEIL: 300 ppm TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 15 minutes. STEL: 2050 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 2 mg/m³ 8 hours.	toluene	OSHA PEL Z2 (United States, 2/2013).
CEIL: 300 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. STEL: 500 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 300 ppm 8 hours. TWA: 300 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 300 ppm 8 hours. TWA: 300 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 433 mg/m³ 8 hours. TWA: 20 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. CSHA PEL 23 (United States). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours.		
TWA: 200 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 200 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2020). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. STEL: 450 ppm 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 235 mg/m³ 8 hours. FUM: 235 mg/m³ 8 hours. TWA: 20 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. FUM: 2 pg/m³ 8 hours. FUM: 2 pg/m³ 8 hours. CSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours.		
ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. None. Methylcyclohexane ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 1610 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 15 minutes. STEL: 651 mg/m³ 15 minutes. STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 20 ppm 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. FORM: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 20 ppm 8 hours. OSHA PEL LOINITED States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL LOINITED States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL LOINITED States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL LOINITED States, 3/2020). TWA: 20 ppm 8 hours.		
TWA: 20 ppm 8 hours. None. ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2000 mg/m³ 15 minutes. STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 4000 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 1640 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 400 ppm 8 hours. STEL: 150 ppm 15 minutes. STEL: 150 ppm 18 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 420 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. FORA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. SORA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. SORA PEL (United States, 3/2020). TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. ORA PEL Quinted States, 3/2020). TWA: 2 mg/m³ 8 hours. ORA PEL Quinted States, 3/2020). TWA: 2 mg/m³ 8 hours. ORA PEL Quinted States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
Solvent naphtha (petroleum), light aliph. methylcyclohexane ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 1640 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. TWA: 400 ppm 8 hours. TWA: 434 mg/m³ 8 hours. STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 435 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 5/2018). ACGIH TLV (United States, 5/2018). ACGIH TLV (United States, 5/2018). ABSOrbed through skin. TWA: 240 mg/m³ 8 hours.		
ACGIH TLV (United States, 3/2020). TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 5/2018). STEL: 651 mg/m³ 15 minutes. TWA: 500 ppm 15 minutes. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 430 mg/m³ 8 hours. ACGIH TLV (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	Solvent naphtha (petroleum), light aliph.	• • • • • • • • • • • • • • • • • • • •
TWA: 1610 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 1640 mg/m³ 8 hours. TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL L(United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 16 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 3/2020). STEL: 500 ppm 15 minutes. TWA: 404 mg/m³ 8 hours. TWA: 404 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 430 ppm 8 hours. TWA: 430 ppm 8 hours. TWA: 410 ppm 8 hours. TWA: 410 ppm 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. OSHA PEL Z3 (United States, 3/2020). TWA: 2 mg/m³ 8 hours. OSHA PEL Z5 (United States). TWA: 2 mg/m³ 8 hours. OSHA PEL (United States, 5/2018). ACGIH TLV (United States, 5/2018). ABsorbed through skin. TWA: 240 mg/m³ 8 hours.	,,	
OSHA PEL (Ünited States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m² 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m² 8 hours. TWA: 434 mg/m² 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m² 8 hours. TWA: 435 mg/m² 8 hours. TWA: 400 ppm 8 hours. TWA: 20 ppm 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours.		
TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 5/2018). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
ACGIH TLV (United States, 3/2020). STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
STEL: 2050 mg/m³ 15 minutes. STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 651 mg/m³ 15 minutes. STEL: 651 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 20 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	hentane	
STEL: 500 ppm 15 minutes. TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 650 ppm 15 minutes. STEL: 650 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 435 mg/m³ 8 hours. TWA: 436 mg/m³ 8 hours. TWA: 20 ppm 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	Tieptane	
TWA: 1640 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m² 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 409 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
OSHA PEL (United States, 5/2018). TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m² 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 2000 mg/m³ 8 hours. TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 500 ppm 8 hours. ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 0 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
ACGIH TLV (United States, 3/2020). STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
STEL: 651 mg/m³ 15 minutes. STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	valene	
STEL: 150 ppm 15 minutes. TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 20 ppm 8 hours. OSHA PEL (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	xylerie	
TWA: 434 mg/m³ 8 hours. TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 100 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. TWA: 2 mg/m³ 8 hours. TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ ACGIH TLV (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 100 ppm 8 hours. ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		· · · · · · · · · · · · · · · · · · ·
Talc, not containing asbestiform fibers ACGIH TLV (United States, 3/2020). TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 2 mg/m³ 8 hours. Form: Respirable OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	Tale not containing asheatif file	
OSHA PEL Z3 (United States). TWA: 2 mg/m³ ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	i aic, not containing aspestitorm fibers	,
TWA: 2 mg/m³ 2-butoxyethanol ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
2-butoxyethanol ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		· · · · · · · · · · · · · · · · · · ·
TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
OSHA PEL (United States, 5/2018). Absorbed through skin. TWA: 240 mg/m³ 8 hours.	2-butoxyethanol	
Absorbed through skin. TWA: 240 mg/m³ 8 hours.		
TWA: 240 mg/m³ 8 hours.		
-		
Huitad Otatas Barra 7/00		TWA: 240 mg/m³ 8 hours.
		United States Page: 7/20

Product name DARK RED

Section 8. Exposure controls/personal protection

TWA: 50 ppm 8 hours. Lead chromate molybdate sulfate red ACGIH TLV (United States, 3/2020). TWA: 10 mg/m³, (as Mo) 8 hours. Form: Inhalable fraction STEL: 0.0005 mg/m³, (measured as Cr) 15 minutes. Form: Inhalable fraction TWA: 3 mg/m³, (as Mo) 8 hours. Form: Respirable fraction TWA: 0.05 mg/m³, (as Pb) 8 hours. **ACGIH TLV (United States).** TWA: 3 mg/m³ Form: Respirable TWA: 0.05 mg/m³ Form: Total dust OSHA PEL (United States, 5/2018). TWA: 15 mg/m³, (as Mo) 8 hours. Form: Total dust TWA: 0.005 mg/m³, (as Cr) 8 hours. TWA: 50 µg/m³, (as Pb) 8 hours. OSHA PEL Z2 (United States, 2/2013). CEIL: 1 mg/10m3 **OSHA PEL (United States).** TWA: 10 mg/m³ TWA: 50 µg/m³ ACGIH TLV (United States, 3/2020). ethyl acetate TWA: 1440 mg/m³ 8 hours. TWA: 400 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 1400 mg/m³ 8 hours. TWA: 400 ppm 8 hours. ethylbenzene ACGIH TLV (United States, 3/2020). TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 435 mg/m³ 8 hours. TWA: 100 ppm 8 hours. 4-methylpentan-2-one ACGIH TLV (United States, 3/2020). STEL: 75 ppm 15 minutes. TWA: 20 ppm 8 hours. OSHA PEL (United States, 5/2018). TWA: 410 mg/m³ 8 hours. TWA: 100 ppm 8 hours. lead massive ACGIH TLV (United States, 3/2020). TWA: 0.05 mg/m³, (as Pb) 8 hours. OSHA PEL (United States, 5/2018). TWA: 50 µg/m³, (as Pb) 8 hours. **OSHA PEL (United States).** TWA: 50 µg/m³

Key to abbreviations

= Acceptable Maximum Peak S = Potential skin absorption ACGIH = American Conference of Governmental Industrial Hygienists. SR = Respiratory sensitization = Ceiling Limit SS = Skin sensitization С F = Fume STEL = Short term Exposure limit values IPEL = Internal Permissible Exposure Limit = Total dust TD OSHA Occupational Safety and Health Administration. TLV = Threshold Limit Value = Respirable TWA = Time Weighted Average R

United States Page: 8/20

Product name DARK RED

Section 8. Exposure controls/personal protection

= OSHA 29 CFR 1910.1200 Subpart Z - Toxic and Hazardous Substances

Consult local authorities for acceptable exposure limits.

procedures

Recommended monitoring: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to appropriate monitoring standards. Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

Appropriate engineering controls

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

Environmental exposure controls

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

Individual protection measures

Hygiene measures

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

Eye/face protection **Skin protection**

: Chemical splash goggles and face shield.

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.

Gloves **Body protection**

: polvethylene

: 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 antistatic 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

Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If workers are exposed to concentrations above the exposure limit, they must use appropriate, certified respirators. Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. The respiratory protection shall be in accordance to 29 CFR 1910.134.

> **United States** Page: 9/20

Product name DARK RED

Section 9. Physical and chemical properties

Appearance

Physical state : Liquid.
Color : Red.

Odor : Not available.
Odor threshold : Not available.
pH : Not available.
Melting point : Not available.
Boiling point : >37.78°C (>100°F)

Flash point : Closed cup: 3.89°C (39°F)

Auto-ignition temperature : Not available.

Decomposition temperature : Not available.

Flammability (solid, gas) : Not available.

Lower and upper explosive : Not available.

(flammable) limits

Evaporation rate: Not available.Vapor pressure: Not available.Vapor density: Not available.

Relative density : 0.92 Density (lbs / gal) : 7.68

Solubility : Partially soluble in the following materials: cold water.

Partition coefficient: n-

octanol/water

: Not applicable.

Viscosity : Kinematic (40°C (104°F)): >21 mm²/s (>21 cSt)

Volatility : 80% (v/v), 69.557% (w/w)

% **Solid.** (w/w) : 30.443

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 : When exposed to high temperatures may produce hazardous decomposition products.

Refer to protective measures listed in sections 7 and 8.

Incompatible materials: Keep away from the following materials to prevent strong exothermic reactions:

oxidizing agents, strong alkalis, strong acids.

United States Page: 10/20

Product name DARK RED

Section 10. Stability and reactivity

Hazardous decomposition products

: Depending on conditions, decomposition products may include the following materials: carbon oxides nitrogen oxides sulfur oxides halogenated compounds metal oxide/ oxides

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
e thanol	LC50 Inhalation Vapor	nalation Vapor Rat 124700 mg/m		4 hours
	LD50 Dermal	Rat	17100 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-
butan-1-ol	LC50 Inhalation Vapor	Rat	24000 mg/m ³	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	790 mg/kg	-
toluene	LC50 Inhalation Vapor	Rat	49 g/m³	4 hours
	LD50 Dermal	Rabbit	8.39 g/kg	-
	LD50 Oral	Rat	5580 mg/kg	-
Solvent naphtha (petroleum),	LC50 Inhalation Vapor	Rat	>20 mg/l	4 hours
light aliph.				
	LD50 Dermal	Rat	>2000 mg/kg	-
	LD50 Oral	Rat	>5000 mg/kg	-
methylcyclohexane	LD50 Oral	Rat	4 g/kg	-
heptane	LC50 Inhalation Gas.	Rat	48000 ppm	4 hours
	LC50 Inhalation Vapor	Rat	103 g/m³	4 hours
xylene	LD50 Dermal	Rabbit	1.7 g/kg	-
	LD50 Oral	Rat	4.3 g/kg	-
2-butoxyethanol	LD50 Dermal	Rabbit	1060 mg/kg	-
-	LD50 Oral	Rat - Male	1480 mg/kg	-
ethyl acetate	LD50 Dermal	Rabbit	>5 g/kg	-
•	LD50 Oral	Rat	5620 mg/kg	-
ethylbenzene	LC50 Inhalation Vapor	Rat	17.8 mg/l	4 hours
•	LD50 Dermal	Rabbit	17.8 g/kg	-
	LD50 Oral	Rat	3.5 g/kg	-
4-methylpentan-2-one	LC50 Inhalation Vapor	Rat	12.3 mg/l	4 hours
	LD50 Dermal	Rabbit	>5000 mg/kg	-
	LD50 Oral	Rat	2.08 g/kg	-

Conclusion/Summary Irritation/Corrosion

Product/ingredient name

: There are no data available on the mixture itself.

xylene Skin - Moderate irritant Rabbit - 24 hours 500 - mg
2-butoxyethanol Skin - Moderate irritant Rabbit - 4 hours 28 days Eyes - Irritant Rabbit - 24 hours 21 days

Species

Score

Exposure

Observation

Conclusion/Summary

Skin : There are no data available on the mixture itself.Eyes : There are no data available on the mixture itself.

Result

United States Page: 11/20

Product name DARK RED

Section 11. Toxicological information

Respiratory: There are no data available on the mixture itself.

Sensitization

Conclusion/Summary

Skin : There are no data available on the mixture itself.

Respiratory : There are no data available on the mixture itself.

Mutagenicity

Conclusion/Summary: There are no data available on the mixture itself.

Carcinogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Classification

Product/ingredient name	OSHA	IARC	NTP
toluene	-	3	-
xylene	-	3	-
2-butoxyethanol	-	3	-
Lead chromate molybdate sulfate red	+	1	Known to be a human carcinogen.
ethylbenzene	-	2B	-
4-methylpentan-2-one	-	2B	-

Carcinogen Classification code:

IARC: 1, 2A, 2B, 3, 4

NTP: Known to be a human carcinogen; Reasonably anticipated to be a human carcinogen

OSHA: +

Not listed/not regulated: -

Reproductive toxicity

Conclusion/Summary: There are no data available on the mixture itself.

Teratogenicity

Conclusion/Summary: There are no data available on the mixture itself.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
butan-1-ol	Category 3	-	Respiratory tract irritation
	Category 3		Narcotic effects
toluene	Category 3	-	Narcotic effects
Solvent naphtha (petroleum), light aliph.	Category 3	-	Narcotic effects
methylcyclohexane	Category 3	-	Narcotic effects
heptane	Category 3	-	Narcotic effects
xylene	Category 3	-	Respiratory tract irritation
Talc, not containing asbestiform fibers	Category 3	-	Respiratory tract irritation
ethyl acetate	Category 3	-	Narcotic effects
4-methylpentan-2-one	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

United States Page: 12/20

Product name DARK RED

Section 11. Toxicological information

Name	3 3 3	Route of exposure	Target organs
toluene	Category 2	-	-
Lead chromate molybdate sulfate red	Category 2	-	-
ethylbenzene	Category 2	-	hearing organs

Target organs

: Contains material which causes damage to the following organs: brain, central nervous system (CNS).

Contains material which may cause damage to the following organs: blood, kidneys, lungs, the nervous system, the reproductive system, liver, heart, spleen, lymphatic system, peripheral nervous system, cardiovascular system, upper respiratory tract, skin, bone marrow, ears, eye, lens or cornea.

Aspiration hazard

Name	Result
toluene	ASPIRATION HAZARD - Category 1
Solvent naphtha (petroleum), light aliph.	ASPIRATION HAZARD - Category 1
methylcyclohexane	ASPIRATION HAZARD - Category 1
heptane	ASPIRATION HAZARD - Category 1
xylene	ASPIRATION HAZARD - Category 1
ethylbenzene	ASPIRATION HAZARD - Category 1

Information on the likely routes of exposure

Potential acute health effects

Eye contact : Causes serious eye damage.

Inhalation : Can cause central nervous system (CNS) depression. May cause drowsiness or

dizziness.

Skin contact: Causes skin irritation. Defatting to the skin.

Ingestion : Can cause central nervous system (CNS) depression.

Over-exposure signs/symptoms

Eye contact: Adverse symptoms may include the following:

pain watering redness

Inhalation : Adverse symptoms may include the following:

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:

pain or irritation

redness dryness cracking

blistering may occur reduced fetal weight

United States Page: 13/20

Product name DARK RED

Section 11. Toxicological information

increase in fetal deaths skeletal malformations

Ingestion : Adverse symptoms may include the following:

stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

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

Conclusion/Summary

: There are no data available on the mixture itself. Contains lead. Exposure to lead dust and fumes adversely affects blood and blood forming tissues, kidneys, liver, the central/ peripheral nervous systems and male/female reproductive organs. Lead exposure causes adverse developmental effects including brain damage in children and unborn fetuses. Acrylate components of the mixture have irritating properties. Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms, such as redness, blistering, dermatitis etc. May cause allergic skin reactions with repeated exposure. The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract. Ingestion may cause nausea, weakness and central nervous system effects. Exposure to component solvent vapor concentrations in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms and signs include headache, dizziness, fatique, muscular weakness, drowsiness and, in extreme cases, loss of consciousness. Solvents may cause some of the above effects by absorption through the skin. There is some evidence that repeated exposure to organic solvent vapors in combination with constant loud noise can cause greater hearing loss than expected from exposure to noise alone. If splashed in the eyes, the liquid may cause irritation and reversible damage. This takes into account, where known, delayed and immediate effects and also chronic effects of components from short-term and long-term exposure by oral, inhalation and dermal routes of exposure and eye contact.

Short term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

Potential delayed effects

Long term exposure

Potential immediate

effects

: There are no data available on the mixture itself.

There are no data available on the mixture itself.

Potential delayed effects: There are no data available on the mixture itself.

Potential chronic health effects

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

repeated contact can defat the skin and lead to irritation, cracking and/or dermatitis.

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

Mutagenicity: No known significant effects or critical hazards.

Reproductive toxicity: May damage fertility or the unborn child.

Numerical measures of toxicity

Acute toxicity estimates

United States Page: 14/20

Product name DARK RED

Section 11. Toxicological information

Product/ingredient name	Oral (mg/ kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/ I)
MARK RED	4483	6318.3	N/A	110.8	15.1
ethanol	7000	17100	N/A	124.7	N/A
butan-1-ol	790	3400	N/A	24	N/A
toluene	5580	8390	N/A	49	N/A
Solvent naphtha (petroleum), light aliph.	N/A	2500	N/A	N/A	N/A
methylcyclohexane	4000	N/A	N/A	N/A	N/A
heptane	N/A	N/A	48000	103	N/A
xylene	4300	1700	N/A	11	1.5
2-butoxyethanol	1480	1060	N/A	11	1.5
ethyl acetate	5620	N/A	N/A	N/A	N/A
ethylbenzene	3500	17800	N/A	17.8	1.5
4-methylpentan-2-one	2080	N/A	N/A	12.3	1.5

Section 12. Ecological information

Toxicity

Product/ingredient name	Result	Species	Exposure
ethanol	Acute EC50 7640 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
butan-1-ol	Acute LC50 1376 mg/l	Fish	96 hours
2-butoxyethanol	Acute LC50 1474 mg/l	Fish	96 hours
	Chronic NOEC >100 mg/l	Fish	21 days
ethylbenzene	Acute LC50 150 to 200 mg/l Fresh water	Fish	96 hours
4-methylpentan-2-one	Acute LC50 >179 mg/l	Fish	96 hours

Persistence and degradability

Product/ingredient name	Test	Result	Result			Inoculum
4-methylpentan-2-one	OECD 301F	83 % - Rea	83 % - Readily - 28 days		S	
Product/ingredient name	Aquatic half-life	e	Photolysis		Biodegradability	
ethanol	-		-		Readily	
toluene	-		-		Readily	
xylene	-		-		Readily	
2-butoxyethanol	-		-		Readily	
ethylbenzene	-		-		Readily	
4-methylpentan-2-one	-		-		Readily	

Bioaccumulative potential

United States Page: 15/20

Product name DARK RED

Section 12. Ecological information

Product/ingredient name	LogPow	BCF	Potential
e thanol	-0.35	-	low
butan-1-ol	1	-	low
toluene	2.73	8.32	low
methylcyclohexane	3.61	186.21	low
heptane	4.66	-	high
xylene	3.12	7.4 to 18.5	low
2-butoxyethanol	0.81	-	low
ethyl acetate	0.68	-	low
ethylbenzene	3.6	79.43	low
4-methylpentan-2-one	1.9	-	low

Mobility in soil

Soil/water partition coefficient (Koc)

: Not available.

Section 13. Disposal considerations

Disposal methods

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

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees. Section 6. Accidental release measures

14. Transport information

	DOT	IMDG	IATA
UN number	UN1263	UN1263	UN1263
UN proper shipping name	PAINT	PAINT	PAINT
Transport hazard class (es)	3	3	3
Packing group	II	II	II

United States Page: 16/20

Product name DARK RED

14. Transport information

Environmental hazards | No. | Yes. | Yes. | Yes. The environmentally

hazardous substance mark is

not required.

Marine pollutant Not applicable. (methylcyclohexane, heptane) Not applicable.

substances

Product RQ (lbs) 2084.1 Not applicable. Not applicable.

RQ substances (xylene, toluene) Not applicable. Not applicable.

Additional information

DOT : Package sizes shipped in quantities less than the product reportable quantity are not subject to the

RQ (reportable quantity) transportation requirements.

IMDG : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.

IATA : The environmentally hazardous substance mark may appear if required by other transportation

regulations.

Special precautions for user : Transport within user's premises: always transport in closed containers that are

upright and secure. Ensure that persons transporting the product know what to do in

the event of an accident or spillage.

Transport in bulk according : Not applicable.

to IMO instruments

Section 15. Regulatory information

United States

United States inventory (TSCA 8b): All components are active or exempted.

United States - TSCA 12(b) - Chemical export notification:

Lead chromate molybdate sulfate red One time notification

SARA 302/304

SARA 304 RQ : Not applicable.

Composition/information on ingredients

No products were found.

SARA 311/312

Classification : FLAMMABLE LIQUIDS - Category 2

SKIN IRRITATION - Category 2

SERIOUS EYE DAMAGE - Category 1
CARCINOGENICITY - Category 1A

TOXIC TO REPRODUCTION - Category 1A

SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) -

Category 3

SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 2

HNOC - Defatting irritant

Composition/information on ingredients

United States Page: 17/20

Section 15. Regulatory information

Name	%	Classification
e thanol	≥10 - ≤20	FLAMMABLE LIQUIDS - Category 2
		EYE IRRITATION - Category 2A
		HNOC - Defatting irritant
butan-1-ol	≥5.0 - ≤11	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (oral) - Category 4
		SKIN IRRITATION - Category 2
		SERIOUS EYE DAMAGE - Category 1
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
4.1	>5.0 440	HNOC - Defatting irritant
oluene	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 2
		SKIN IRRITATION - Category 2
		TOXIC TO REPRODUCTION - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2 ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
Solvent naphtha (petroleum),	≥5.0 - ≤8.2	SKIN IRRITATION - Category 2
light aliph.	=0.0 - =0.2	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
iigitt diipit.		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
methylcyclohexane	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 2
, ,		SKIN IRRITATION - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
heptane	≥5.0 - ≤10	FLAMMABLE LIQUIDS - Category 2
		SKIN IRRITATION - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		ASPIRATION HAZARD - Category 1
		HNOC - Defatting irritant
xylene	≥1.0 - ≤4.8	FLAMMABLE LIQUIDS - Category 3
		ACUTE TOXICITY (dermal) - Category 4
		ACUTE TOXICITY (inhalation) - Category 4
		SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3 ASPIRATION HAZARD - Category 1
Talc, not containing asbestiform	≥1.0 - ≤3.4	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
fibers	-1.030.4	(Respiratory tract irritation) - Category 3
2-butoxyethanol	≥1.0 - ≤3.5	FLAMMABLE LIQUIDS - Category 4
2 Satoryothanor	_1.0 _0.0	ACUTE TOXICITY (oral) - Category 4
		ACUTE TOXICITY (dermal) - Category 4
		, to the total transfer on one of the

United States Page: 18/20

Product code 438	Date of issue 1 June 2021	Version 19
Product name DARK RED		

Section 15. Regulatory information

		ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2
		EYE IRRITATION - Category 2A
Lead chromate molybdate	≥1.0 - ≤5.0	CARCINOGENICITY - Category 1A
sulfate red	-1.0 -0.0	TOXIC TO REPRODUCTION - Category 1A
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
ethyl acetate	≥1.0 - ≤5.0	FLAMMABLÉ LIQUIDS - Category 2
		EYE IRRITATION - Category 2A
		SPECIFIC TARGET ORĞAN TOXICITY (SINGLE EXPOSURE)
		(Narcotic effects) - Category 3
		HNOC - Defatting irritant
ethylbenzene	<1.0	FLAMMABLE LIQUIDS - Category 2
		ACUTE TOXICITY (inhalation) - Category 4
		CARCINOGENICITY - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (REPEATED
		EXPOSURE) - Category 2
		ASPIRATION HAZARD - Category 1
4 " 1 0		HNOC - Defatting irritant
4-methylpentan-2-one	<1.0	FLAMMABLE LIQUIDS - Category 2
		ACUTE TOXICITY (inhalation) - Category 4
		EYE IRRITATION - Category 2A CARCINOGENICITY - Category 2
		SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE)
		(Respiratory tract irritation) - Category 3
		HNOC - Defatting irritant
		THIVOU - Dolatting initiant

SARA 313

	<u>Chemical name</u>	<u>CAS number</u>	<u>Concentration</u>
Supplier notification	: 🕟utan-1-ol	71-36-3	7 - 13
	toluene	108-88-3	5 - 10
	xylene	1330-20-7	1 - 5
	2-butoxyethanol	111-76-2	1 - 5
	ethylbenzene	100-41-4	0.1 - 1
	4-methylpentan-2-one	108-10-1	0.1 - 1

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

Additional environmental information is contained on the Environmental Data Sheet for this product, which can be obtained from your PPG representative.

California Prop. 65

★ WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

United States Page: 19/20

Product name DARK RED

Section 16. Other information

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

Health: 3 * Flammability: 3 Physical hazards: 0

(*) - Chronic effects

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 MSDSs 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.

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.

National Fire Protection Association (U.S.A.)

Health: 3 Flammability: 3 Instability: 0

Date of previous issue : 2/19/2021

Organization that prepared

the SDS

Key to abbreviations : ATE = Acute Toxicity Estimate

: EHS

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.

Disclaimer

The information contained in this data sheet is based on present scientific and technical knowledge. The purpose of this information is to draw attention to the health and safety aspects concerning the products supplied by PPG, and to recommend precautionary measures for the storage and handling of the products. No warranty or guarantee is given in respect of the properties of the products. No liability can be accepted for any failure to observe the precautionary measures described in this data sheet or for any misuse of the products.

United States Page: 20/20