DESIGN ENGINEERING, INC.

SAFETY DATA SHEET

1. Identification

Product number 010490

Product identifier Hi-Temp Spray Adhesive

Company information Design Engineering, Inc.

604 Moore Rd

Avon Lake, OH 44012 United States

www.designengineering.com

Company phone440-930-7940Emergency telephone US800-264-9472Emergency telephone outside440-930-7940

US

Version # 01

Recommended use ADHESIVE Recommended restrictions None known.

2. Hazard(s) identification

Physical hazardsFlammable aerosolsCategory 1Health hazardsSkin corrosion/irritationCategory 2

Serious eye damage/eye irritation Category 2A
Germ cell mutagenicity Category 1B
Reproductive toxicity (fertility, the unborn Category 2

child)

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated

exposure

Category 2

Aspiration hazard Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements



Signal word Danger

Extremely flammable aerosol. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure.

Precautionary statement

Hazard statement

Prevention Obtain special instructions before use. Do not handle until all safety precautions have been read

and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Do not breathe gas. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

ResponseIf swallowed: Immediately call a poison center/doctor. If on skin: Wash with plenty of water. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse

cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Specific treatment (see this label). Do NOT induce vomiting. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse. Collect spillage.

Storage Store in a well-ventilated place. Keep container tightly closed. Store locked up. Protect from

sunlight. Do not expose to temperatures exceeding 50°C/122°F.

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

Hazard(s) not otherwise classified (HNOC)

None known.

Supplemental information None.

3. Composition/information on ingredients

Mixtures

| Chemical name | Common name and synonyms | CAS number | % |
|--|--------------------------|------------|----------|
| Acetone | | 67-64-1 | 20 - 40 |
| Dimethyl Ether | | 115-10-6 | 10 - 20 |
| Propane | | 74-98-6 | 10 - 20 |
| 2-Methylpentane | | 107-83-5 | 2.5 - 10 |
| n-Hexane | | 110-54-3 | 2.5 - 10 |
| Toluene | | 108-88-3 | 2.5 - 10 |
| 3-Methylpentane | | 96-14-0 | 1 - 2.5 |
| Cyclohexane | | 110-82-7 | 1 - 2.5 |
| Other components below reportable levels | ; | | 20 - 40 |

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON

CENTER or doctor/physician if you feel unwell.

Skin contact Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact Rinse with water. Get medical attention if irritation develops and persists.

Ingestion Rinse mouth. Get medical attention if symptoms occur.

Most important

symptoms/effects, acute and

delayed

media

May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Keep victim under observation.

Symptoms may be delayed.

General information

IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media Unsuitable extinguishing Alcohol resistant foam. Dry powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

Contents under pressure. Pressurized container may explode when exposed to heat or flame.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Fire-fighting equipment/instructions

Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

Specific methodsUse standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. In the event of fire and/or explosion do not

breathe fumes.

General fire hazards Extremely flammable aerosol.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe gas. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Refer to attached safety data sheets and/or instructions for use. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Do not re-use empty containers. Do not breathe gas. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Use only in well-ventilated areas. Should be handled in closed systems, if possible. Pregnant or breastfeeding women must not handle this product. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Avoid release to the environment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Level 3 Aerosol.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C/122°F. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. This material can accumulate static charge which may cause spark and become an ignition source. Refrigeration recommended. Store away from incompatible materials (see Section 10 of the SDS). Level 3 Aerosol.

8. Exposure controls/personal protection

Occupational exposure limits

| Components | Туре | Value | |
|-----------------------------------|-----------------------------|------------|--|
| Dimethyl Ether (CAS 115-10-6) | STEL | 2 ppm | |
| | TWA | 0.75 ppm | |
| US. OSHA Table Z-1 Limits for Air | Contaminants (29 CFR 1910.1 | 000) | |
| Components | Туре | Value | |
| Acetone (CAS 67-64-1) | PEL | 2400 mg/m3 | |
| | | 1000 ppm | |
| Cyclohexane (CAS 110-82-7) | PEL | 1050 mg/m3 | |
| , | | 300 ppm | |
| n-Hexane (CAS 110-54-3) | PEL | 1800 mg/m3 | |
| | | 500 ppm | |
| Propane (CAS 74-98-6) | PEL | 1800 mg/m3 | |
| . , | | 1000 ppm | |
| US. OSHA Table Z-2 (29 CFR 1910 |).1000) | . , | |
| Components | Туре | Value | |
| Toluene (CAS 108-88-3) | Ceiling | 300 ppm | |
| | TWA | 200 ppm | |
| | | | |

| US. ACGIH Threshold Limit Values | | | |
|--|---------|------------|--|
| Components | Туре | Value | |
| 2-Methylpentane (CAS 107-83-5) | STEL | 1000 ppm | |
| , | TWA | 500 ppm | |
| 3-Methylpentane (CAS 96-14-0) | STEL | 1000 ppm | |
| , | TWA | 500 ppm | |
| Acetone (CAS 67-64-1) | STEL | 750 ppm | |
| | TWA | 500 ppm | |
| Cyclohexane (CAS 110-82-7) | TWA | 100 ppm | |
| Dimethyl Ether (CAS 115-10-6) | Ceiling | 0.3 ppm | |
| n-Hexane (CAS 110-54-3) | TWA | 50 ppm | |
| Toluene (CAS 108-88-3) | TWA | 20 ppm | |
| US. NIOSH: Pocket Guide to Chemical I | Hazards | | |
| Components | Туре | Value | |
| Acetone (CAS 67-64-1) | TWA | 590 mg/m3 | |
| , | | 250 ppm | |
| Cyclohexane (CAS 110-82-7) | TWA | 1050 mg/m3 | |
| , | | 300 ppm | |
| Dimethyl Ether (CAS 115-10-6) | Ceiling | 0.1 ppm | |
| , | TWA | 0.016 ppm | |
| n-Hexane (CAS 110-54-3) | TWA | 180 mg/m3 | |
| | | 50 ppm | |
| Propane (CAS 74-98-6) | TWA | 1800 mg/m3 | |
| | | 1000 ppm | |
| Toluene (CAS 108-88-3) | STEL | 560 mg/m3 | |
| | | 150 ppm | |
| | TWA | 375 mg/m3 | |
| | | 100 ppm | |
| US. Workplace Environmental Exposure Level (WEEL) Guides | | | |
| Components | Type | Value | |
| Dimethyl Ether (CAS 115-10-6) | TWA | 1880 mg/m3 | |
| | | 1000 ppm | |

Biological limit values

ACGIH Biological Exposure Indices

| Components | Value | Determinant | Specimen | Sampling Time |
|-------------------------|-----------|---|---------------------|---------------|
| Acetone (CAS 67-64-1) | 50 mg/l | Acetone | Urine | * |
| n-Hexane (CAS 110-54-3) | 0.4 mg/l | 2,5-Hexanedio n, without hydrolysis | Urine | * |
| Toluene (CAS 108-88-3) | 0.3 mg/g | o-Cresol, with hydrolysis | Creatinine in urine | * |
| | 0.03 mg/l | Toluene | Urine | * |
| | 0.02 mg/l | Toluene | Blood | * |

^{* -} For sampling details, please see the source document.

Exposure guidelines

US - California OELs: Skin designation

n-Hexane (CAS 110-54-3) Toluene (CAS 108-88-3) Can be absorbed through the skin. Can be absorbed through the skin.

US - Minnesota Haz Subs: Skin designation applies

Toluene (CAS 108-88-3)

Skin designation applies.

US ACGIH Threshold Limit Values: Skin designation

n-Hexane (CAS 110-54-3)

Can be absorbed through the skin.

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Wear safety glasses with side shields (or goggles). Eye/face protection

Hand protection Wear appropriate chemical resistant gloves.

Skin protection

Other Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Skin protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an Respiratory protection

air-supplied respirator.

Wear appropriate thermal protective clothing, when necessary. Thermal hazards

General hygiene considerations

When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely

wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Gas. Aerosol. **Form** Color Not available. Odor Not available. **Odor threshold** Not available. На Not available. Melting point/freezing point Not available.

Initial boiling point and boiling

range

123.42 °F (50.79 °C) estimated

Flash point -156.0 °F (-104.4 °C) PROPELLANT estimated

Not available. **Evaporation rate** Flammability (solid, gas) Not available. Upper/lower flammability or explosive limits

Flammability limit - lower

2.2 % estimated

(%)

Flammability limit - upper

8.6 % estimated

Not available. Explosive limit - lower (%) Explosive limit - upper (%) Not available.

214.45 psig @70F estimated Vapor pressure

Vapor density Not available.

Relative density 0.5 g/cm3 estimated

Solubility(ies)

Solubility (water) Not available. **Partition coefficient** Not available.

(n-octanol/water)

Auto-ignition temperature 672.83 °F (356.01 °C) estimated

Decomposition temperature Not available. **Viscosity** Not available.

Other information

0.534 estimated Specific gravity

10. Stability and reactivity

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

Chemical stability Material is stable under normal conditions.

Possibility of hazardous Hazardous polymerization does not occur.

reactions

Conditions to avoid Avoid temperatures exceeding the flash point. Contact with incompatible materials.

Incompatible materials Strong oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

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

chemical pneumonia.

Inhalation May cause damage to organs through prolonged or repeated exposure by inhalation. May cause

drowsiness and dizziness. Headache. Nausea, vomiting. Prolonged inhalation may be harmful.

Skin contact Causes skin irritation.

Eye contact Causes serious eye irritation.

Rat

Symptoms related to the physical, chemical and toxicological characteristics

Oral LD50 May cause drowsiness and dizziness. Headache. Nausea, vomiting. Irritation of nose and throat. Aspiration may cause pulmonary edema and pneumonitis. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

460 mg/kg

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Narcotic effects.

| reductive toxicity way be ratal if swallowed and efficies all ways. Narcolle effects. | | ers all ways. Narcotic effects. |
|---|------------|---------------------------------|
| Components | Species | Test Results |
| Acetone (CAS 67-64-1) | | |
| Acute | | |
| Dermal | | |
| LD50 | Guinea pig | > 7426 mg/kg, 24 Hours |
| | | > 9.4 ml/kg, 24 Hours |
| | Rabbit | > 7426 mg/kg, 24 Hours |
| | | > 9.4 ml/kg, 24 Hours |
| Inhalation | | |
| LC50 | Rat | 55700 ppm, 3 Hours |
| | | 132 mg/l, 3 Hours |
| | | 50.1 mg/l |
| Oral | | |
| LD50 | Rat | 5800 mg/kg |
| | | 2.2 ml/kg |
| Cyclohexane (CAS 110-82-7 | ") | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg |
| Inhalation | | |
| LC50 | Rat | > 32880 mg/m3, 4 Hours |
| | | > 5540 ppm, 4 Hours |
| Dimethyl Ether (CAS 115-10 | -6) | |
| Acute | | |
| Inhalation | | |
| NOEL | Rat | 2 ppm, 6 Hours |

| Components | Species | Test Results |
|-------------------------|-------------------------------------|---------------------------|
| n-Hexane (CAS 110-54-3) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 2000 mg/kg, 4 Hours |
| | | > 5 ml/kg, 4 Hours |
| Inhalation | | |
| LC50 | Rat | > 5000 ppm, 24 Hours |
| | | > 31.86 mg/l |
| | | 73860 ppm, 4 Hours |
| Oral | | |
| LD50 | Rat | 24 ml/kg |
| | | 24 g/kg |
| | Wistar rat | 49 g/kg |
| Propane (CAS 74-98-6) | | |
| Acute | | |
| Inhalation | | |
| LC50 | Mouse | 1237 mg/l, 120 Minutes |
| | | 52 %, 120 Minutes |
| | Rat | 1355 mg/l |
| | | 658 mg/l/4h |
| Toluene (CAS 108-88-3) | | |
| Acute | | |
| Dermal | | |
| LD50 | Rabbit | > 5000 mg/kg, 24 Hours |
| Inhalation | | |
| LC50 | Mouse | 6405 - 7436 ppm, 6 Hours |
| | | 5320 ppm, 8 Hours |
| | Rat | 5879 - 6281 ppm, 6 Hours |
| | | 12.5 - 28.8 mg/l, 4 Hours |
| Oral | | <u> </u> |
| LD50 | Rat | 5000 mg/kg |
| | be based on additional component da | |

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

irritation

Causes serious eye irritation.

Respiratory or skin sensitization

Respiratory sensitization Not available.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicityNo data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Toluene (CAS 108-88-3) 3 Not classifiable as to carcinogenicity to humans.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

Reproductive toxicity Suspected of damaging the unborn child. Suspected of damaging fertility.

Specific target organ toxicity -

single exposure

May cause drowsiness and dizziness.

Specific target organ toxicity - Respiratory system. Ski

repeated exposure

Respiratory system. Skin. Kidneys. Central nervous system. Eyes. Liver. Peripheral nervous

system. May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard May be fatal if swallowed and enters airways.

Chronic effects Prolonged inhalation may be harmful. May cause damage to organs through prolonged or

repeated exposure.

12. Ecological information

Ecotoxicity Toxic to aquatic life with long lasting effects.

| Components | | Species | Test Results |
|-----------------------|-----------|---|--------------------------------|
| Acetone (CAS 67-64-1 | 1) | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia magna) | 21.6 - 23.9 mg/l, 48 hours |
| Fish | LC50 | Rainbow trout,donaldson trout (Oncorhynchus mykiss) | 4740 - 6330 mg/l, 96 hours |
| Cyclohexane (CAS 11 | 0-82-7) | | |
| Aquatic | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 23.03 - 42.07 mg/l, 96 hours |
| Dimethyl Ether (CAS 1 | 115-10-6) | | |
| Aquatic | | | |
| Crustacea | EC50 | Water flea (Daphnia pulex) | 4.3 - 7.8 mg/l, 48 hours |
| Fish | LC50 | Striped bass (Morone saxatilis) | 10.302 - 16.743 mg/l, 96 hours |
| n-Hexane (CAS 110-5 | 4-3) | | |
| Aquatic | | | |
| Fish | LC50 | Fathead minnow (Pimephales promelas) | 2.101 - 2.981 mg/l, 96 hours |
| Toluene (CAS 108-88- | -3) | | |
| Aquatic | | | |
| Algae | IC50 | Algae | 433.0001 mg/L, 72 Hours |
| Crustacea | EC50 | Daphnia | 7.645 mg/L, 48 Hours |
| | | Water flea (Daphnia magna) | 5.46 - 9.83 mg/l, 48 hours |
| Fish | LC50 | Coho salmon,silver salmon (Oncorhynchus kisutch) | 8.11 mg/l, 96 hours |
| | | | |

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential No data available.

Partition coefficient n-octanol / water (log Kow)

| 2-Methylpentane | 3.74 |
|-----------------|-------|
| 3-Methylpentane | 3.6 |
| Acetone | -0.24 |
| Cyclohexane | 3.44 |
| Dimethyl Ether | 0.1 |
| n-Hexane | 3.9 |
| Propane | 2.36 |
| Toluene | 2.73 |

Mobility in soil No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructionsCollect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents

under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international

regulations.

Local disposal regulations Dispose in accordance with all applicable regulations.

Hazardous waste code The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

US RCRA Hazardous Waste U List: Reference

Acetone (CAS 67-64-1) U002 Cyclohexane (CAS 110-82-7) U056 Toluene (CAS 108-88-3) U220

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Empty containers

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

emptied. Do not re-use empty containers.

14. Transport information

DOT

UN number UN1950

UN proper shipping name Ae

Aerosols, flammable

Transport hazard class(es)

Class 2.1 Subsidiary risk -Label(s) 2.1

Packing group Not applicable.

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Special provisionsN82Packaging exceptions306Packaging non bulkNonePackaging bulkNone

This product meets the exception requirements of section 173.306 as a limited quantity and may be shipped as a limited quantity. Until 12/31/2020, the "Consumer Commodity - ORM-D" marking may still be used in place of the new limited quantity diamond mark for packages of UN 1950 Aerosols. Limited quantities require the limited quantity diamond mark on cartons after 12/31/20 and may be used now in place of the "Consumer Commodity ORM-D" marking and both may be displayed concurrently.

IATA

UN number UN1950

UN proper shipping name Ae

Transport hazard class(es)

Aerosols, flammable

Class 2.1 Subsidiary risk -Label(s) 2.1

Packing group Not applicable.

Environmental hazards Yes **ERG Code** 10L

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Other information

Passenger and cargo

aircraft

Allowed.

Cargo aircraft only Allowed.

Packaging Exceptions LTD QTY

IMDG

UN number UN1950 UN proper shipping name AEROSOLS

Transport hazard class(es)

Class 2.1 Subsidiary risk -Label(s) 2.1

Packing group Not applicable.

Environmental hazards

Marine pollutant Yes
S F-D. S-U

Special precautions for user Read safety instructions, SDS and emergency procedures before handling. Read safety

instructions, SDS and emergency procedures before handling.

Packaging Exceptions LTD QTY

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable.

DOT



IATA; IMDG



Marine pollutant



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

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

All components are on the U.S. EPA TSCA Inventory List.

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

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

n-Hexane (CAS 110-54-3)

Toluene (CAS 108-88-3)

Listed.

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous No

chemical

SARA 313 (TRI reporting)

| Chemical name | CAS number | % by wt. | |
|---------------|------------|----------|--|
| n-Hexane | 110-54-3 | 2.5 - 10 | |
| Toluene | 108-88-3 | 2.5 - 10 | |
| Cyclohexane | 110-82-7 | 1 - 2.5 | |

Other federal regulations

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

n-Hexane (CAS 110-54-3) Toluene (CAS 108-88-3)

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

Dimethyl Ether (CAS 115-10-6)

Propane (CAS 74-98-6)

Safe Drinking Water Act

Not regulated.

(SDWA)

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

Acetone (CAS 67-64-1) 6532 Toluene (CAS 108-88-3) 6594

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

Acetone (CAS 67-64-1) 35 %WV Toluene (CAS 108-88-3) 35 %WV

DEA Exempt Chemical Mixtures Code Number

Acetone (CAS 67-64-1) 6532 Toluene (CAS 108-88-3) 594

US state regulations

US. Massachusetts RTK - Substance List

2-Methylpentane (CAS 107-83-5)

3-Methylpentane (CAS 96-14-0)

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Dimethyl Ether (CAS 115-10-6)

n-Hexane (CAS 110-54-3)

Propane (CAS 74-98-6)

Toluene (CAS 108-88-3)

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

2-Methylpentane (CAS 107-83-5)

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Dimethyl Ether (CAS 115-10-6)

n-Hexane (CAS 110-54-3)

Propane (CAS 74-98-6)

Toluene (CAS 108-88-3)

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

2-Methylpentane (CAS 107-83-5)

3-Methylpentane (CAS 96-14-0)

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Dimethyl Ether (CAS 115-10-6)

n-Hexane (CAS 110-54-3)

Propane (CAS 74-98-6)

Toluene (CAS 108-88-3)

US. Rhode Island RTK

Acetone (CAS 67-64-1)

Cyclohexane (CAS 110-82-7)

Dimethyl Ether (CAS 115-10-6)

n-Hexane (CAS 110-54-3)

Propane (CAS 74-98-6) Toluene (CAS 108-88-3)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm

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

Toluene (CAS 108-88-3) Listed: January 1, 1991

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

Toluene (CAS 108-88-3) Listed: August 7, 2009

International Inventories

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

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

Toxic Substances Control Act (TSCA) Inventory

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

Issue date 07-12-2015

Version # 01

United States & Puerto Rico

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Yes

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).