



To Our Customers:

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All statements, technical information, and recommendations contained therein are solely that of the manufacturer of the product. We at Zep Inc. did not verify the accuracy and completeness of the statements and do not warrant or guarantee the information. We provide vendor SDSs to assist our customers in their compliance efforts. The attached document is in compliance with one of the respective country regulatory requirements noted below:

The OSHA Hazard Communication Standard (in the United States)
The Hazardous Products Regulations (in Canada)

We made every effort to deliver all of the information prepared by the manufacturer. We cannot anticipate all conditions under which this information will be used. If you have any questions about the statements on the SDS, please contact the company shown on the document.

Zep Inc. assumes no liability or responsibility for loss or damage resulting from the improper use or handling of this product, from incompatible product combinations, or from the failure to follow instructions, warnings, and advisories in the manufacturer's product label and Safety Data Sheet.

Sincerely,

Product Stewardship Team
Zep Inc.

SDS(Safety Data Sheet)

Product	GS WDCTF HD H		
MSDS Number	List No.	Issuing date	Last revised date
-	LB3228	2017-06-19	2024-09-06

1. IDENTIFICATION

1) Product name

GS WDCTF HD H

2) Recommended use of the chemical and restriction on use

- Recommended use Lubricants
- Restrictions on use Do not use for any other purpose.

3) Details of the supplier of the safety data sheet

○ Manufacturer

- Company name GS Caltex Corporation
- Address GS Tower, 508, Nonhyeon-ro, Gangnam-gu, Seoul, Korea
- Emergency telephone number 1544-5151

2. HAZARDS IDENTIFICATION

1) Classification of the product

ASPIRATION HAZARD : Category 1

2) Label elements

○ Hazard pictograms



○ Signal word

Danger

○ Hazard statements

- H304 May be fatal if swallowed and enters airways.
- H350 May cause cancer.

○ Precautionary statements

1) Prevention

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

2) Response

- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P308 + P313 IF exposed or concerned: Get medical advice/attention.
- P331 Do not induce vomiting.

3) Storage

- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container to

3) Other hazards

○ Product NFPA Level

(※ 0-Lack, 1-Low, 2-Moderate, 3-High, 4-Very High)

Product name	Health	Flammable	Reaction
GS WDCTF HD H	0	1	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	Trade names and Synonyms	CAS No.	EC No.	Contain Ratio(%)
1-Decene, dimer, hydrogenated	9,10-dimethyloctadecane	68649-11-6	500-228-5	35 ~ 45
Trade secret				5 ~ 15
Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated	CSR160805-24364	151006-58-5		35 ~ 45
Distillates (petroleum), hydrotreated middle	Hydrotreated middle distillates (petroleum) ; Hydrotreated middle petroleum distillates ; Hydrotreated petroleum middle distillates	64742-46-7	265-148-2	5 ~ 10
Isooctadecanoic acid reaction products with tetraethylenepentamine	CSR160805-24703	68784-17-8	272-225-4	0.1 ~ 2.0
N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine	; 1-(N,N-bis(2-ethylhexyl)aminomethyl)-1,2,4-triazole ; 1H-1,2,4-Triazole-1-methanamine, N,N-bis(2-ethylhexyl)-	91273-04-0		0.001 ~ 0.1

Except for the above components, all components are not listed as they do not meet the criteria for hazardous risk classification in Article 104 (Classification of Hazardous Factors) of Regulated Acts and Occupational Safety and Health Act.

4. FIRST AID MEASURES

1) Eye contact

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.
- If eye irritation persists: Get medical advice/attention.

2) Skin contact

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.
- If skin irritation occurs: Get medical advice/attention.

3) Inhalation

- Do not use mouth-to-mouth method if victim inhaled the substance; give artificial

respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

- Administer oxygen if breathing is difficult.
- IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
- IF exposed or concerned: Get medical advice/attention.
- Do not induce vomiting.

4) Ingestion

- Do not use mouth-to-mouth method if victim ingested the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

5) Indication of any immediate medical attention and special treatment needed

- Exposures require specialized first aid with contact and medical follow-up.
- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. FIRE FIGHTING MEASURES

- 1) Suitable (and unsuitable) extinguishing media**
- Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this material.
 - Use dry sand or earth to smother fire.
 - Direct water (Unsuitable extinguishing media)
- 2) Special hazards arising from the substance or mixture**
- Fire may produce irritating, corrosive and/or toxic gases.
 - Heating may cause a fire or explosion.
- 3) Special protective equipment and precautions for firefighters**
- Rescuers should put on appropriate protective gear.
 - In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion.
 - Eliminate all ignition sources if safe to do so.

6. ACCIDENTAL RELEASE MEASURES

- 1) Health considerations and protective equipment**
- Clean up spills immediately, observing precautions in Protective Equipment section.
 - ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
 - Do not touch damaged containers or spilled material unless wearing appropriate protective clothing.
 - Please note that materials and conditions to be avoided.
- 2) Environmental precautions**
- Large spill: Prevent entry into waterways, sewers, basements or confined areas.
- 3) Methods and material for containment and cleaning up**
- Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container.
 - Absorb the liquid and scrub the area with detergent and water.

7. HANDLING AND STORAGE

- 1) Precautions for safe handling**
- Follow all MSDS/label precautions even after container is emptied because they may retain product residues.
 - Avoid breathing vapors from heated material.
 - Please note that materials and conditions to be avoided.
 - Handling refer to engineering control/personal protection section.
 - Use only outdoors or in a well-ventilated area.
- 2) Conditions for safe storage (including any incompatibilities)**
- Please note that materials and conditions to be avoided.
 - Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
 - Store in a well-ventilated place. Keep container tightly closed.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

1) Control parameters

Chemical name	Exposure limits	ACGIH TLV	OSHA PEL	Biological limit values(BLV)
1-Decene, dimer, hydrogenated	Not available	Not available	Not available	Not available
Trade secret	Not available	Not available	Not available	Not available
Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated	Not available	Not available	Not available	Not available
Distillates (petroleum), hydrotreated middle	TWA : 0.8 mg/m3	Not available	Not available	Not available
Isooctadecanoic acid reaction products with tetraethylenepentamine	Not available	Not available	Not available	Not available
N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine	Not available	Not available	Not available	Not available

2) Appropriate engineering controls

- Install local exhaust ventilation system.
- Check legal suitability of exposure level.

3) Personal protection equipment

- **Respiratory protection**
- If exposure concentration of the material is lower than 100 ppm of the permitted exposure standards, Wear a respiratory protective device, equipped with an adequate filter by considering physicochemical properties of exposed particulate material ; such
 - If exposure concentration of the particle material is lower than 250 ppm of the permitted exposure standards, Wear a respiratory protective device, equipped with an adequate filter by considering physicochemical properties of exposed particulate material
 - If exposure concentration of the particle material is lower than 500 ppm of the

permitted exposure standards, Wear a respiratory protective device, equipped with an adequate filter by considering physicochemical properties of exposed particulate materia

- If exposure concentration of the particle material is lower than 10000 ppm of the permitted exposure standards, Wear a respiratory protective device, equipped with an adequate filter by considering physicochemical properties of exposed particulate mater
- If exposure concentration of the material is lower than 100000 ppm of the permitted exposure standards, Wear a respiratory protective device, equipped with an adequate filter by considering physicochemical properties of exposed particulate material ; su
- If exposure concentration of the material exceeds the permitted exposure standards, Wear European Standard EN 149 approved full or half face piece (with goggles) respireatory protective equipment.

○ **Eye protection**

- An eye wash unit and safety shower station should be available nearby work place.
- Wear breathable safety goggles to protect from vapour state organic material causing eye irritation or other disorder.

○ **Hand protection**

- Wear appropriate protective gloves by considering physical and chemical properties of chemicals.

○ **Body protection**

- Wear appropriate protective clothing by considering physical and chemical properties of chemicals.

9. PHYSICAL AND CHEMICAL PROPERTIES

Item	Input Value
Apperance	Liquid
Color	No Data
Smell	a specific smell of Hydrocarbon
Smell Threshold	No Data
pH (Numerical value)	No Data
Melting/Freezing Point	No Data
Boilling Point	No Data
Flash Point	148 °C
Evaporating Rate	No Data
Flammability(Solid, Gas)	No Data
Explosibility Range	No Data
Steam Pressure	No Data
Solubility	No Data
Vapor Density	No Data

Specific Gravity	0.8196
Distribution Coefficient	No Data
Selfignition Temperature	No Data
Pyrolysis Temperature	No Data
Viscosity	4.98 mm ² /s (at 100°C)
Molecular Weight	No Data

10. STABILITY AND REACTIVITY

- 1) Chemical Stability and hazardous reactivity** - Can form explosive mixtures at temperatures at or above the flashpoint.
- Fire may produce irritating, corrosive and/or toxic gases.
- 2) Conditions to avoid** - Ignition source(heat, spark, flame, friction, shock, contamination)
- 3) Incompatible materials** - Combustibles
- 4) Hazardous decomposition products** - During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

11. TOXICOLOGICAL INFORMATION

1) Information on the likely routes of exposures

- ☐ **Inhalation**
- No inhalation effects through respiratory system.
- ☐ **Skin contact**
- No effect on skin contact.
- ☐ **Eye contact**
- No effect on eye contact.
- ☐ **Ingestion**
- May be fatal if swallowed and enters airways.
- Absorbable through the inhalation

2) Health hazard information

- ☐ **Acute toxicity**
 - * **Oral - Not classified (ATEmix > 2000 mg/kg)**
 - 1-Decene, dimer, hydrogenated : rat(male/female); LD50 > 5000 mg/kg bw, no deaths (16 CFR 1500, GLP) (ECHA)
 - Trade secret : Not available
 - Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : rat(male/female); LD50 > 5000 mg/kg bw, no deaths (OECD TG 420, GLP) (ECHA)
 - Distillates (petroleum), hydrotreated middle : rat(male/female); LD50 > 5000 mg/kg bw, no deaths (OECD TG 401, GLP) (read across: (CAS# 64742-80-9) (ECHA)
 - Isooctadecanoic acid reaction products with tetraethylenepentamine : rat; LD50 > 5000 mg/kg bw, no deaths (EPA OPP 81-1, GLP) (HPVIS)
 - N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : rat(male/female); LD50 = 2356 mg/kg bw (OECD TG

401) (ECHA)

*** Dermal - Not classified (ATEmix > 2000 mg/kg)**

- 1-Decene, dimer, hydrogenated : rabbit(male/female); LD50 > 3000 mg/kg bw, no deaths (OECD TG 402) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : rat(male/female); LD50 > 2000 mg/kg bw, no deaths (OECD TG 402, GLP) (ECHA)
- Distillates (petroleum), hydrotreated middle : rabbit(male/female); LD50 > 2000 mg/kg bw, no deaths (OECD TG 402, GLP) (read across: (CAS# 64742-80-9) (ECHA)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : rabbit; LD50 > 2000 mg/kg bw, no deaths (OECD TG 402, GLP) (HPVIS)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : rat(male/female); LD50 > 2000, no deaths (OECD TG 402) (ECHA)

*** Inhalation(Gas) - Not applicable**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

*** Inhalation(Vapour) - Not classified (ATEmix > 20 mg/L)**

- 1-Decene, dimer, hydrogenated : Not available
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : Not available
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not available

*** Inhalation(Dust, mist) - Not classified (ATEmix > 5 mg/L)**

- 1-Decene, dimer, hydrogenated : rat(male/female); inhalation: aerosol; LC50 > 5.06 mg/L air /4h, no deaths (OECD TG 403, GLP) (read across: Alkane 4) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : rat(male/female); inhalation: aerosol; LC50 > 1.81 mg/L air /4h (OECD TG 403, GLP) (read across: SHF-21) (ECHA)
- Distillates (petroleum), hydrotreated middle : rat(male/female); inhalation: aerosol/vapour mix; LC50 = 7.640 mg/L air /4h, no deaths (OECD TG 403, GLP) (read across: (CAS# 64742-80-9) (ECHA)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not available

○ Skin corrosion/Irritation : Not classified

- 1-Decene, dimer, hydrogenated : rabbit; not irritating (OECD TG 404) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : rabbit; not irritating (OECD TG 404, GLP) (ECHA)
- Distillates (petroleum), : rabbit; Irritation studies were conducted in rabbits on commercial C14-C20

- hydrotreated middle Aliphatic Hydrocarbon Solvents ($\leq 2\%$ Aromatics) (CAS RN 64742-47-8, 64742-46-7, 90622-47-2, 60908-77-2 (analogue), 90622-46-1, and 52845-07-5 (analogue)). In dermal irritation tests, the average erythema score (24, 48, 72 hours) results were 0.0 to 1.11, but generally below 1.0. The average edema score (24, 48, 72 hours) results were 0.0 to 1.0, but generally 0.0, suggesting that these solvents produce no to minimal irritation to rabbit skin. (SIDS)
- Isooctadecanoic acid : Not available
 - reaction products with tetraethylenepentamine
 - N,N-Bis(2-ethyl hexyl)- : rabbit; corrosive; noted up to 14 days observation (OECD TG 404, GLP) (ECHA)
 - [(1,2,4-triazol-1-yl)methyl]amine

○ **Serious eye damage/irritation : Not classified**

- 1-Decene, dimer, : rabbit; not irritating (16 CFR 1500, GLP) (ECHA)
- hydrogenated
- Trade secret : Not available
- Reaction products of 1- : rabbit; not irritating (OECD TG 405, GLP) (ECHA)
- decene and 1-dodecene, dimer, hydrogenated
- Distillates (petroleum), : rabbit; not irritating (OECD TG 405, GLP) (read across: (CAS# 64742-80-9)
- hydrotreated middle (ECHA)
- Isooctadecanoic acid : Not available
- reaction products with tetraethylenepentamine
- N,N-Bis(2-ethyl hexyl)- : Because this substance is classified as corrosive to skin so is considered to be
- [(1,2,4-triazol-1-yl)methyl]amine corrosive to eye.

○ **Respiratory sensitization : Not classified**

- 1-Decene, dimer, : Not available
- hydrogenated
- Trade secret : Not available
- Reaction products of 1- : Not available
- decene and 1-dodecene, dimer, hydrogenated
- Distillates (petroleum), : Not available
- hydrotreated middle
- Isooctadecanoic acid : Not available
- reaction products with tetraethylenepentamine
- N,N-Bis(2-ethyl hexyl)- : Not available
- [(1,2,4-triazol-1-yl)methyl]amine

○ **Skin sensitization : Not classified**

- 1-Decene, dimer, : guinea pig; not sensitising (OECD TG 406, GLP) (ECHA)

hydrogenated

- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : guinea pig; not sensitising (OECD TG 406, GLP) (ECHA)
- Distillates (petroleum), hydrotreated middle : guinea pig; not sensitising (OECD TG 406, GLP) (ECHA)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : guinea pig; 85 to 95% of the animals were sensitised by the test article under the experimental conditions employed. The test substance is therefore regarded a skin sensitizer.; >=30% responding at >1% intradermal induction dose (OECD TG 406, GLP) (ECHA)

○ **Carcinogenicity : Category 1B**

- 1-Decene, dimer, hydrogenated : IARC, EU CLP 1272/2008, OSHA, ACGIH, US EPA IRIS, NTP : not listed
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : IARC, EU CLP 1272/2008, OSHA, ACGIH, US EPA IRIS, NTP : not listed
- Distillates (petroleum), hydrotreated middle : EU CLP 1272/2008 : Carc. 1B (Note L : The classification as a carcinogen need not apply if the full refining history is known and it can be shown that the substance from which it is produced is not a carcinogen.)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : IARC, NTP; UES EPA IRIS, ACGIH, EU CLP 1272/2008 : not listed
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : IARC, EU CLP 1272/2008, OSHA, ACGIH, US EPA IRIS, NTP : not listed

○ **Germ cell mutagenicity : Not classified**

- 1-Decene, dimer, hydrogenated : In vitro Bacterial Reverse Mutation Assay : negative (OECD TG 471, GLP) (read across: Alkane-5) (ECHA), In Vitro Mammalian Chromosome Aberration Test : negative (OECD TG 473, GLP) (read across: Alkane-4) (ECHA)
In vivo Mammalian Erythrocyte Micronucleus Test : negative (OECD TG 474, GLP) (read across: Oronite XS 101) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : In vitro bacterial reverse mutation assay : negative (OECD TG 471, GLP) (ECHA)
In vivo Mammalian Erythrocyte Micronucleus Test : negative (OECD TG 474, GLP) (ECHA)
- Distillates (petroleum), hydrotreated middle : In vitro Bacterial Reverse Mutation Assay : negative (OECD TG 471, GLP) (ECHA), In Vitro Sister Chromatid Exchange Assay in Mammalian Cells : ambiguous with metabolic activation, negative without metabolic activation (OECD TG 479, GLP) (read across: (CAS# 64742-80-9) (ECHA)
In vivo Mammalian Bone Marrow Chromosome Aberration Test : negative (OECD

TG 475) (ECHA)

- Isooctadecanoic acid : in vitro bacterial reverse mutation assay : negative (OECD TG 471, GLP) (HPVIS)
reaction products with : In vivo : not available
tetraethylenepentamine
- N,N-Bis(2-ethyl hexyl)- : In vitro Reverse Mutation Test Using Bacteria; Negative (OECD TG 471) (ECHA)
[(1,2,4-triazol-1-yl)methyl]amine : In vivo Mammalian Erythrocyte Micronucleus Test: negative (OECD TG 474)
(ECHA)

○ **Reproductive toxicity : Not classified**

- 1-Decene, dimer, : rat(male/female); 0, 100, 500, or 1000 mg/kg/day; one-generation reproductive
hydrogenated : toxicity; Ethylflo 166 did not appear to have any effects on reproduction. (OECD
TG 415, GLP) (read across: Ethylflo 166 poly alpha olefin) (ECHA)
- Trade secret : Not available
- Reaction products of 1- : rat(male/female); 0, 50, 250, 1000 mg/kg bw/day; one-generation reproductive
decene and 1-dodecene, : toxicity; resulted in no treatment-related effects. The 'No Observed Effect Level'
dimer, hydrogenated : for adult toxicity and reproductive and developmental toxicity was therefore
considered to be 1000 mg/kg/day. (OECD TG 415, GLP) (read across: Alkane 4)
(ECHA)
- Distillates (petroleum), : Based on this data, the C14-C20 Aliphatic Hydrocarbon Solvents ($\leq 2\%$
hydrotreated middle : aromatics) Category members are not expected to be reproductive or
developmental toxicants. (SIDS)
- Isooctadecanoic acid : rat; The NOAEL was reported to be >1000 mg/kg-bw/day for systemic and
reaction products with : reproductive toxicity in the parental generation and for developmental toxicity
tetraethylenepentamine : in the pups. (CESAR)
- N,N-Bis(2-ethyl hexyl)- : rat(male); oral; 10, 30, 100 mg/kg; The NOAEL for reproductive and
[(1,2,4-triazol-1-yl)methyl]amine : developmental toxicity was considered to be 100 mg/kg bw/day for both sexes.
(OECD TG 421, GLP) (ECHA)

○ **Specific target organ toxicity (single exposure) : Not classified**

- 1-Decene, dimer, : oral; rat(male/female); No gross pathological changes were noted. LD50 > 5000
hydrogenated : mg/kg bw, no deaths (16 CFR 1500, GLP) (ECHA)
dermal; rabbit(male/female); No gross pathological alterations were noted or
observed. LD50 > 3000 mg/kg bw, no deaths (OECD TG 402) (ECHA)
inhalation; rat(male/female); At terminal sacrifice, there were no gross
abnormalities observed. LC50 > 5.06 mg/L air /4h, no deaths (OECD TG 403,
GLP) (read across: Alkane 4) (ECHA)
- Trade secret : Not available
- Reaction products of 1- : dermal; rat(male/female); Skin irritation was noted in controls and treated
decene and 1-dodecene, : animals, but the irritation was more severe and persistent in the treated animals
dimer, hydrogenated : with cracking and scarring occurring in the treated animals. Ocular discharge
occurred in both the controls and treated animals. LD50 > 2000 mg/kg bw, no
deaths (OECD TG 402, GLP) (ECHA)
inhalation; rat(male/female); No significant daily clinical observations in animals
in either group 1 or 2. Animals in group 3 exhibited respiratory rales (2 of 10
males and 8 of 9 surviving females) on day 2. Rales were resolved by day 3.
There were no other test material-related findings. LC50 > 1.81 mg/L air /4h
(OECD TG 403, GLP) (read across: SHF-21) (ECHA)

- Distillates (petroleum), hydrotreated middle : oral; rat(male/female); Pharmacotoxic signs observed included hypoactivity, urine stained abdomen and oily looking hair. LD50 > 5000 mg/kg bw, no deaths (OECD TG 401, GLP) (read across: (CAS# 64742-80-9) (ECHA)
dermal; rabbit(male/female); No visible lesions were reported. LD50 > 2000 mg/kg bw, no deaths (OECD TG 402, GLP) (read across: (CAS# 64742-80-9) (ECHA)
inhalation: aerosol/vapour mix; rat(male/female); Dyspnea, nasal discharge, excess salivation, and matted fur were some of the commonly observed signs in most animals. LC50 = 7.640 mg/L air /4h, no deaths (OECD TG 403, GLP) (read across: (CAS# 64742-80-9) (ECHA)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : oral; rat(male/female); LD50 = 2356 mg/kg bw (OECD TG 401) (ECHA); In the 2000 mg/kg bw dose group, in one female hemorrhagic contents was found in the abdominal cavity.
dermal; rat(male/female); No deviations from normal morphology were found. (OECD TG 402) (ECHA)

○ **Specific target organ toxicity (repeated exposure) : Not classified**

- 1-Decene, dimer, hydrogenated : oral; rat(male/female); 10 weeks; 0, 50, 250, 1000 mg/kg/day; Based on the lack of systemic toxicity effects observed at this dose level, NOAEL=ca. 1000 mg/kg bw/day (OECD TG 408, GLP) (read across: Alkane 4) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : oral; rat(male/female); 0, 200, 500, or 1000 mg/kg/day; 29 days; The test compound did not cause any toxicologically significant or treatment-related results. Therefore, the NOAEL is 1000 mg/kg/day. (OECD TG 407, GLP) (ECHA)
- Distillates (petroleum), hydrotreated middle : rat(male/female); dermal; 90 days; The dermal administration of Light Catalytically Cracked Distillate at doses of 125, 500 and/or 1,250 mg/kg/day resulted in reduction in body weight, reduction in thymus weights and an increase in liver weight. Severe erythema and edema was also reported. Histopathologic evaluation was limited to control animals and those dosed at 500 mg/kg/day. A NOEL was calculated as 25 mg/kg/day for males and 125 mg/kg/day for females. (OECD TG 411) (read across: Light Catalytically Cracked Distillate) (ECHA)
Target organ: Blood, thymus, liver
- Isooctadecanoic acid reaction products with tetraethylenepentamine : rat; The NOAEL was reported to be >1000 mg/kg-bw/day for systemic and reproductive toxicity in the parental generation and for developmental toxicity in the pups. (CESAR)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : oral; rat(male/female); 28 days; Under the experimental conditions of this study, the test substance given to rats at the dose levels of 0, 20, 60 and 200 mg/kg/day did not induce any clinical change. The mortality in the 20 mg/kg/day group (one animal out of ten) cannot be certainly related to the treatment. In laboratory investigations, the slight changes observed at the two higher dose levels have no toxicological significance. At necropsy, drug-related signs were seen in the higher dose group. The NOEL was estimated to be 60 mg/kg/day. (OECD TG 407, GLP) (ECHA)

○ **Aspiration hazard : Category 1**

- 1-Decene, dimer, hydrogenated : 5.54 mm²/s (40°C) (ECHA) & hydrocarbons
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : 5.1 cSt (40°C) (ASTM D445) (read across) (ECHA) & hydrocarbons
- Distillates (petroleum), hydrotreated middle : Viscosity of a range of distillate fuels : $\geq 2 - 8.1$ mm²/s (40°C) & hydrocarbons
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 31.9 mm²/s at 40°C & not hydrocarbons

12. ECOLOGICAL INFORMATION

1) Ecotoxicity

- Acute toxicity : Not classified (ATEmix > 1mg/L)
- Chronic toxicity : Not classified

○ Acute (short-term) aquatic hazard:

Fish

- 1-Decene, dimer, hydrogenated : Water solubility: < 0.1 mg/L (ECHA), 96h-LL50(*Oncorhynchus mykiss*) > 1000 mg/L (OECD TG 203, GLP) (ECHA); No toxic effects up to the limit of water solubility
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : No toxic effects occur within the range of water solubility. (ECHA)
- Distillates (petroleum), hydrotreated middle : The members of the C14-C20 Aliphatic Hydrocarbon Solvents [$\leq 2\%$ aromatics] Category : Water solubility values range from <0.001 to 0.13 mg/L (at 25 °C) (SIDS) 96h-LL50(*Oncorhynchus mykiss*) = 21 mg/L (OECD TG 203, GLP) (read across) (ECHA); No toxic effects up to the limit of water solubility
- Isooctadecanoic acid reaction products with tetraethylenepentamine : 96h-LC50(*Oncorhynchus mykiss*) > 1000 mg/L (EPA OTS 797.1400, GLP) (HPVIS); no toxic effects within the water solubility (<0.05 mg/L) (CESAR)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 96h-LC50(*Danio rerio*) = 1.1 mg/L (OECD TG 203) (ECHA)

Invertebrates

- 1-Decene, dimer, hydrogenated : Water solubility: < 0.1 mg/L (ECHA), 48h-EL50(*Daphnia magna*) > 1000 mg/L (OECD TG 202, GLP) (ECHA); No toxic effects up to the limit of water solubility
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : No toxic effects occur within the range of water solubility. (ECHA)
- Distillates (petroleum), hydrotreated middle : The members of the C14-C20 Aliphatic Hydrocarbon Solvents [$\leq 2\%$ aromatics] Category : Water solubility values range from <0.001 to 0.13 mg/L (at 25 °C) (SIDS) 48h-EL50(*Daphnia magna*) = 210 mg/L (OECD TG 202, GLP) (read across: Complex mixture of hydrocarbons) (ECHA); No toxic effects up to the limit of water solubility

- Isooctadecanoic acid reaction products with tetraethylenepentamine : 48h-EC50(*Daphnia magna*) = 150 mg/L (EPA OTS 797.1300, GLP) (HPVIS); no toxic effects within the water solubility(<0.05 mg/L) (CESAR)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 48h-EC50(*Daphnia magna*) = 2.2 mg/L (read across) (EU Method C.2) (ECHA)

Aquatic algae

- 1-Decene, dimer, hydrogenated : Water solubility:< 0.1 mg/L (ECHA), 72h-ErL50(*Scenedesmus capricornutum*) > 1000 mg/L (OECD TG 201, GLP) (ECHA); No toxic effects up to the limit of water solubility
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : No toxic effects occur within the range of water solubility. (ECHA)
- Distillates (petroleum), hydrotreated middle : The members of the C14-C20 Aliphatic Hydrocarbon Solvents [$\leq 2\%$ aromatics] Category : Water solubility values range from <0.001 to 0.13 mg/L (at 25 °C) (SIDS) 72h-ErL50(*Pseudokirchneriella subcapitata*) = 22 mg/L (OECD TG 201) (read across) (ECHA); No toxic effects up to the limit of water solubility
- Isooctadecanoic acid reaction products with tetraethylenepentamine : 72h-ErC50(*Selenastrum capricornutum*) = 1.3 mg/L (OECD TG 201, GLP) (HPVIS); no toxic effects within the water solubility(<0.05 mg/L) (CESAR)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 72h-ErC50(*Desmodesmus subspicatus*) > 1 mg/L (OECD TG 201, GLP) (ECHA)

○ Chronic (Long-term) aquatic hazard:

Fish

- 1-Decene, dimer, hydrogenated : Not available
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : Not available
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 28d-NOEC > 100 mg/L (OECD TG 215) (ECHA)

Invertebrates

- 1-Decene, dimer, hydrogenated : 21d-NOELR(*Daphnia magna*) = 125 mg/L (OECD TG 211, GLP) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : No toxic effects occur within the range of water solubility. (ECHA)
- Distillates (petroleum), hydrotreated middle : Not available
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 21d-NOEC(*Daphnia magna*) = 0.069 mg/L (read across) (OECD TG 211, GLP) (ECHA)

Aquatic algae

- 1-Decene, dimer, hydrogenated : 72h-NOErLR(*Scenedesmus capricornutum*) = 1000 mg/L (OECD TG 201, GLP) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : No toxic effects occur within the range of water solubility. (ECHA)
- Distillates (petroleum), hydrotreated middle : 72h-NOErL(*Pseudokirchneriella subcapitata*) = 1 mg/L (OECD TG 201) (read across) (ECHA); no observed acute or chronic toxicity at the limit of water solubility
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available

- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 72h-NOErC(Desmodesmus subspicatus) = 0.32 mg/L (OECD DTG 201, GLP) (ECHA)

2) Persistence and degradability

○ Persistence

- 1-Decene, dimer, hydrogenated : log Kow > 6.5 (20 °C; pH:7) (OECD TG 117, GLP) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : log Kow > 6.5 (20 °C; pH:7) (OECD TG 117, GLP) (read across: NEXBASE 2002) (ECHA)
- Distillates (petroleum), hydrotreated middle : log Kow = 7.71 (estimated) (EPISUITE)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : log Kow = 4.79 - 18.38 (CESAR)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : log Kow = 5.72 (estimated) (EPISUITE)

○ Degradability

- 1-Decene, dimer, hydrogenated : Not available
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : Not available
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Test substance is hydrolytically unstable. (ECHA)

3) Bioaccumulative potential

○ Bioaccumulation

- 1-Decene, dimer, hydrogenated : Members of this category are not expected to be bioaccumulative. (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : BCF = 1516 (estimated) (EPISUITE)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : BCF = 116.7 (estimated) (EPISUITE)

○ Biodegradation

- 1-Decene, dimer, hydrogenated : 15 % degradation after 28d; Not readily biodegradable (OECD TG 301D, GLP) (ECHA)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : 15% degradation after 28d; not readily biodegradable (OECD TG 301D, GLP) (read across: Oronite Synfield PAO 2cSt) (ECHA)
- Distillates (petroleum), hydrotreated middle : 34.82 % degradation after 28d; not readily biodegradable (EPA OTS 796.3100) (ECHA)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : 5.0 +/- 1.6 % in 29days; Not readily biodegradable (OECD TG 301B, GLP) (HPVIS)
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : 9 % degradation after 28 days; not biodegradable (OECD TG 301B) (ECHA)

4) Mobility in soil

- 1-Decene, dimer, hydrogenated : Koc = 571100000 (EPISUITE)
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : Koc=4910000 (EPISUITE)
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available

- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Koc = 12490 (EPISUITE)

5) Hazard to the ozone layer

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

6) Other adverse effects

- 1-Decene, dimer, hydrogenated : Not available
- Trade secret : Not available
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not available
- Distillates (petroleum), hydrotreated middle : Not available
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not available
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not available

13. DISPOSAL CONSIDERATIONS

1) Disposal methods

- Waste must be disposed of in accordance with federal, state and local environmental control regulation.

2) Special precaution for disposal

- Consider the required attentions in accordance with waste treatment management regulation.

14. TRANSPORT INFORMATION

1) UN No.

- Not applicable

2) Proper shipping name

- Not applicable

3) Transport hazard class(es)

- Not applicable

4) Packing group

- Not applicable

5) Marine pollutant

- Not applicable

6) Special safety response for transportation or transportation measure

- Types of Emergency Measures in Case of Fire : Not applicable
- Types of Emergency Measures in Leakage : Not applicable
- Transport regulations according to ADR/RID, AND, IMDG and ICAO/IATA : Not applicable

15. REGULATORY INFORMATION

EINECS(or ELINCS)

- 1-Decene, dimer, hydrogenated : Not applicable

- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : European EINECS phase-in substance
- Isooctadecanoic acid reaction products with tetraethylenepentamine : European EINECS phase-in substance
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

EU CLP (CLASSIFICATION) - PRODUCT : Not applicable

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

Substances restricted under REACH

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Substances restricted under REACH
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

Substances subject to authorization under REACH

REACH SVHC List

Korea

○ Occupational Safety and Health Act

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Substance subject to occupational exposure limits, Harmful agents subject to work environment monitoring, Harmful agents subject to workers requiring health examination
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ K-REACH

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ Chemical Control Act in Korea

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable

- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Toxic substance

○ **Safety Control of Dangerous Substances Act**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

U.S.A

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

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **CERCLA Designation of hazardous substances (40 CFR 302.4)**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **CERCLA Section 302 regulation**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **CERCLA Section 304 regulation**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **CERCLA Section 313 regulation**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

Interntional Convention on Environment

○ **Rotterdam Convention list**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **Stockholm Convention list**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **Montreal Protocol list**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

National Inventory

○ **Korea**

- 1-Decene, dimer, hydrogenated : Not applicable
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Not applicable

○ **U.S.A**

- 1-Decene, dimer, hydrogenated : US TSCA phase-in substance
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : US TSCA phase-in substance
- Distillates (petroleum), hydrotreated middle : US TSCA phase-in substance
- Isooctadecanoic acid reaction products with tetraethylenepentamine : US TSCA phase-in substance
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : US TSCA phase-in substance

○ **China**

- 1-Decene, dimer, hydrogenated : China phase-in substance
- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : China phase-in substance
- Distillates (petroleum), hydrotreated middle : China phase-in substance
- Isooctadecanoic acid reaction products with tetraethylenepentamine : China phase-in substance
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : China phase-in substance

○ **Japan**

- 1-Decene, dimer, hydrogenated : Not applicable

- Trade secret : Not applicable
- Reaction products of 1-decene and 1-dodecene, dimer, hydrogenated : Not applicable
- Distillates (petroleum), hydrotreated middle : Not applicable
- Isooctadecanoic acid reaction products with tetraethylenepentamine : Not applicable
- N,N-Bis(2-ethyl hexyl)-[(1,2,4-triazol-1-yl)methyl]amine : Japan ENCS phase-in substance

16. OTHER INFORMATION

1) Reference

- Sources of information used in preparing this SDS included one or more of the following: Internal technical data, data from OECD eChemPortal, ECHA, NITE, TOXNET, IPCS and KOSHA search results.

2) Issue Date

- 2017-06-19

3) Revision number and Last date revised

☐ Number of revised

- 5

☐ Date of last revision

- 2023-08-17

☐ Last Revision History

- MSDS Update

4) Other

- The information contained in the Safety Data Sheet is at the date of its issuance to the best of our knowledge correct according to the data available to us. The information is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and shall not be considered a warranty or quality specification of any type. The information provided relates only to the specific material identified at the top of this SDS and may not be valid when the SDS material is used in combination with any other materials or in any process, unless specified in the text. Material users should review the information and recommendations in the specific context of their intended manner of handling, use, processing and storage, including an assessment of the appropriateness of the SDS material in the user's end product, if applicable.