

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SECTION 1. IDENTIFICATION**

Product name : NGP-68  
Article-No. : 340218

**Manufacturer or supplier's details**

Company name of supplier : Klüber Lubrication NA LP  
9010 County Road 2120  
Tyler, Texas 75707  
USA  
Phone: +1 903 534-8021  
Fax: +1 903 581-4376

32 Industrial Drive  
Londonderry, NH 03053  
USA  
Phone: +1 603 647-4104  
Fax: +1 603 647-4106

E-mail address of person responsible for the SDS : mcm@us.kluber.com  
Material Compliance Management

Emergency telephone number : +1-517-545-7070 NCEC

**Recommended use of the chemical and restrictions on use**

Recommended use : Lubricating oil  
Restrictions on use : Restricted to professional users.



**SECTION 2. HAZARDS IDENTIFICATION**

**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Skin sensitisation : Category 1

**Reproductive toxicity : Category 2**

**GHS label elements**

Hazard pictograms :  

**NGP-68**

Version 2.0	Revision Date: 01/13/2023	Date of last issue: 10/18/2021 Date of first issue: 10/18/2021	Print Date: 01/14/2023
----------------	------------------------------	---	---------------------------

Signal word : Warning

Hazard statements : May cause an allergic skin reaction.  
Suspected of damaging fertility.

Precautionary statements : **Prevention:**  
Obtain special instructions before use.  
Avoid breathing vapours.  
Wear protective gloves/ protective clothing/ eye protection/ face protection.

**Response:**  
IF exposed or concerned: Get medical advice/ attention.

**Storage:**  
Store locked up.

**Disposal:**  
Dispose of contents/ container to an approved waste disposal plant.

**Other hazards**  
None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

Chemical nature : Mineral oil.

**Components**

Chemical name	CAS-No.	Concentration (% w/w)
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	Trade secret ( $\geq 80 - \leq 100$ )
Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene	68411-46-1	Trade secret ( $\geq 0.1 - < 1$ )
2,5-bis(octyldithio)-1,3,4-thiadiazole	13539-13-4	Trade secret ( $\geq 0.1 - < 1$ )

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

If inhaled : Obtain medical attention.  
Remove person to fresh air. If signs/symptoms continue, get medical attention.  
Keep patient warm and at rest.  
If unconscious, place in recovery position and seek medical

**NGP-68**

Version 2.0	Revision Date: 01/13/2023	Date of last issue: 10/18/2021 Date of first issue: 10/18/2021	Print Date: 01/14/2023
----------------	------------------------------	---	---------------------------

- advice.  
Keep respiratory tract clear.  
If breathing is irregular or stopped, administer artificial respiration.
- In case of skin contact : Take off all contaminated clothing immediately.  
Get medical attention immediately if irritation develops and persists.  
Wash clothing before reuse.  
Thoroughly clean shoes before reuse.  
Wash off immediately with plenty of water.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 10 minutes.  
If eye irritation persists, consult a specialist.
- If swallowed : Move the victim to fresh air.  
If unconscious, place in recovery position and seek medical advice.  
Keep respiratory tract clear.  
Do NOT induce vomiting.  
Obtain medical attention.  
Rinse mouth with water.  
Never give anything by mouth to an unconscious person.
- Most important symptoms and effects, both acute and delayed : May cause an allergic skin reaction.  
Allergic appearance
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
- Unsuitable extinguishing media : High volume water jet
- Hazardous combustion products : Carbon oxides
- Further information : Standard procedure for chemical fires.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.  
Use personal protective equipment.  
Exposure to decomposition products may be a hazard to health.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.  
Use personal protective equipment.  
Ensure adequate ventilation.  
Do not breathe vapours or spray mist.  
Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Do not allow contact with soil, surface or ground water.  
Prevent further leakage or spillage if safe to do so.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling : Do not breathe vapours or spray mist.  
Avoid contact with skin and eyes.  
For personal protection see section 8.  
Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.  
Smoking, eating and drinking should be prohibited in the application area.  
Wash hands and face before breaks and immediately after handling the product.  
Do not get in eyes or mouth or on skin.  
Do not get on skin or clothing.  
Do not ingest.  
Do not repack.  
Do not re-use empty containers.  
These safety instructions also apply to empty packaging which may still contain product residues.  
Keep container closed when not in use.
- Conditions for safe storage : Store in original container.  
Keep container closed when not in use.  
Keep in a dry, cool and well-ventilated place.  
Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Store in accordance with the particular national regulations.  
Keep in properly labelled containers.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Components with workplace control parameters**

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	TWA (Inhalable particulate matter)	5 mg/m3	ACGIH (2013-03-01)
		TWA (Mist)	5 mg/m3	OSHA Z-1 (2018-03-15)
		TWA (Mist)	5 mg/m3	OSHA P0 (1989-01-19)
		TWA (Mist)	5 mg/m3	NIOSH REL (2019-10-04)
		ST (Mist)	10 mg/m3	NIOSH REL (2019-10-04)

**Engineering measures** : Handle only in a place equipped with local exhaust (or other appropriate exhaust).

**Personal protective equipment**

Respiratory protection : Not required; except in case of aerosol formation.

Filter type : Filter type A-P

Hand protection

Material : Nitrile rubber  
Break through time : > 10 min  
Protective index : Class 1

Remarks : Wear protective gloves. The break through time depends amongst other things on the material, the thickness and the type of glove and therefore has to be measured for each case.

Eye protection : Safety glasses with side-shields

Skin and body protection : Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place.

Protective measures : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures : Wash face, hands and any exposed skin thoroughly after handling.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : yellow

Odour : characteristic

Odour Threshold : No data available

pH : Not applicable  
substance/mixture is non-soluble (in water)

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : 469 °F / 243 °C  
Method: ASTM D 92

Evaporation rate : No data available

Flammability (solid, gas) : Not applicable

Self-ignition : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : < 0.001 hPa (68 °F / 20 °C)

Relative vapour density : No data available

Relative density : 0.867 (68 °F / 20 °C)  
Reference substance: Water  
The value is calculated

Bulk density : No data available

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

Solubility(ies)  
Water solubility : insoluble

Solubility in other solvents : No data available

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : No data available

Decomposition temperature : No data available

Viscosity  
Viscosity, dynamic : No data available

Viscosity, kinematic : 68 mm<sup>2</sup>/s (104 °F / 40 °C)

Explosive properties : Not explosive

Oxidizing properties : No data available

Sublimation point : No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No hazards to be specially mentioned.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.

Conditions to avoid : No conditions to be specially mentioned.

Incompatible materials : No materials to be especially mentioned.

Hazardous decomposition products : No decomposition if stored and applied as directed.

**SECTION 11. TOXICOLOGICAL INFORMATION**

**Acute toxicity**

**Product:**

Acute oral toxicity : Remarks: This information is not available.

Acute inhalation toxicity : Remarks: This information is not available.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

Acute dermal toxicity : Symptoms: Redness, Local irritation

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401  
GLP: yes

Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Method: OECD Test Guideline 403  
Assessment: The substance or mixture has no acute inhalation toxicity

Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg  
Method: OECD Test Guideline 402

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg  
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 (Rat): > 2,000 mg/kg  
Method: OECD Test Guideline 402  
Assessment: The substance or mixture has no acute dermal toxicity

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg

Acute inhalation toxicity : Assessment: The component/mixture is moderately toxic after short term inhalation.

Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

**Skin corrosion/irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation



**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

GLP : yes

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Rabbit  
Assessment : No skin irritation  
Method : OECD Test Guideline 404  
Result : No skin irritation

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Assessment : Irritating to skin.  
Result : Irritating to skin.

**Serious eye damage/eye irritation**

**Product:**

Remarks : This information is not available.

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405  
GLP : yes

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation  
Method : OECD Test Guideline 405

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Rabbit  
Result : No eye irritation  
Assessment : No eye irritation

**Respiratory or skin sensitisation**

**Product:**

Remarks : This information is not available.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Species : Guinea pig  
Assessment : Does not cause skin sensitisation.  
Method : OECD Test Guideline 406  
Result : Does not cause skin sensitisation.  
GLP : yes

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Species : Guinea pig  
Assessment : Did not cause sensitisation on laboratory animals.  
Method : OECD Test Guideline 406  
Result : Did not cause sensitisation on laboratory animals.

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

Species : Guinea pig  
Assessment : May cause sensitisation by skin contact.  
Result : May cause sensitisation by skin contact.

**Germ cell mutagenicity**

**Product:**

Genotoxicity in vitro : Remarks: No data available  
Genotoxicity in vivo : Remarks: No data available

**Carcinogenicity**

**Product:**

Remarks : No data available

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Carcinogenicity - Assessment : Not classifiable as a human carcinogen.

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**IARC  
OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**Reproductive toxicity**

**Product:**

Effects on fertility : Remarks: No data available

Effects on foetal development : Remarks: No data available

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Reproductive toxicity - Assessment : - Fertility -  
No toxicity to reproduction

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Reproductive toxicity - Assessment : - Fertility -  
Some evidence of adverse effects on sexual function and fertility, based on animal experiments.

**Repeated dose toxicity**

**Product:**

Remarks : This information is not available.

**Aspiration toxicity**

**Product:**

This information is not available.

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

No aspiration toxicity classification

**Further information**

**Product:**

Remarks : Information given is based on data on the components and the toxicology of similar products.

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Product:**

Toxicity to fish :  
Remarks: Harmful to aquatic organisms.

Toxicity to daphnia and other :  
aquatic invertebrates       Remarks: No data available

Toxicity to algae/aquatic :  
plants                       Remarks: No data available

Toxicity to microorganisms :   Remarks: No data available

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203  
GLP: yes

Toxicity to daphnia and other : EC50 (Daphnia magna (Water flea)): > 10,000 mg/l  
aquatic invertebrates       Exposure time: 48 h  
Test Type: Immobilization  
Method: OECD Test Guideline 202  
GLP: yes

Toxicity to daphnia and other : NOEC (Daphnia magna (Water flea)): 10 mg/l  
aquatic invertebrates       Exposure time: 21 d  
(Chronic toxicity)       Test Type: semi-static test  
Method: OECD Test Guideline 211  
GLP: yes

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Method: OECD Test Guideline 203

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 51 mg/l  
Exposure time: 48 h  
Test Type: static test  
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants : EC50 (Desmodesmus subspicatus (green algae)): > 100 mg/l  
Exposure time: 72 h  
Test Type: static test  
Method: OECD Test Guideline 201

**2,5-bis(octyldithio)-1,3,4-thiadiazole:**

**Ecotoxicology Assessment**

Chronic aquatic toxicity : May cause long lasting harmful effects to aquatic life.

**Persistence and degradability**

**Product:**

Biodegradability : Remarks: No data available

Physico-chemical removability : Remarks: No data available

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 3 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Biodegradability : aerobic  
Inoculum: activated sludge  
Result: Not rapidly biodegradable  
Biodegradation: 1 %  
Exposure time: 28 d  
Method: OECD Test Guideline 301B  
GLP: yes

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**Bioaccumulative potential**

**Product:**

Bioaccumulation : Remarks: This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT). This mixture contains no substance considered to be very persistent and very bioaccumulating (vPvB).

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Partition coefficient: n-octanol/water : log Pow: > 2

**Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene:**

Partition coefficient: n-octanol/water : log Pow: > 5

**Mobility in soil**

**Product:**

Mobility : Remarks: No data available

Distribution among environmental compartments : Remarks: No data available

**Other adverse effects**

**Product:**

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : No information on ecology is available.

**Components:**

**Distillates (petroleum), hydrotreated heavy paraffinic:**

Results of PBT and vPvB assessment : Non-classified vPvB substance Non-classified PBT substance

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

---

**SECTION 13. DISPOSAL CONSIDERATIONS**

**Disposal methods**

- Waste from residues : The product should not be allowed to enter drains, water courses or the soil.  
Do not dispose of with domestic refuse.  
Dispose of as hazardous waste in compliance with local and national regulations.
- Contaminated packaging : Packaging that is not properly emptied must be disposed of as the unused product.  
Dispose of waste product or used containers according to local regulations.

---

**SECTION 14. TRANSPORT INFORMATION**

**International Regulations**

**UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

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

Not applicable for product as supplied.

**National Regulations**

**49 CFR**

Not regulated as a dangerous good

**Special precautions for user**

Not applicable

---

**SECTION 15. REGULATORY INFORMATION**

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

- SARA 311/312 Hazards** : Respiratory or skin sensitisation  
Reproductive toxicity

**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).  
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

**California Prop. 65**

WARNING: This product can expose you to chemicals including 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

---

**SECTION 16. OTHER INFORMATION**

**Further information**

**Full text of other abbreviations**

ACGIH : USA. ACGIH Threshold Limit Values (TLV)  
NIOSH REL : USA. NIOSH Recommended Exposure Limits  
OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated values)  
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants  
ACGIH / TWA : 8-hour, time-weighted average  
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek  
NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday  
OSHA P0 / TWA : 8-hour time weighted average  
OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous



**NGP-68**

Version	Revision Date:	Date of last issue: 10/18/2021	Print Date:
2.0	01/13/2023	Date of first issue: 10/18/2021	01/14/2023

Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Revision Date : 01/13/2023

This safety data sheet applies only to products as originally packed and labelled. The information contained therein may not be reproduced or modified without our express written permission. Any forwarding of this document is only permitted to the extent required by law. Any further, in particular public, dissemination of the safety data sheet (e.g. as a document for download from the Internet) is not permitted without our express written consent. We provide our customers with amended safety data sheets as prescribed by law. The customer is responsible for passing on safety data sheets and any amendments contained therein to its own customers, employees and other users of the product. We provide no guarantee that safety data sheets received by users from third parties are up-to-date. All information and instructions in this safety data sheet have been compiled to the best of our knowledge and are based on the information available to us on the day of publication. The information provided is intended to describe the product in relation to the required safety measures; it is neither an assurance of characteristics nor a guarantee of the product's suitability for particular applications and does not justify any contractual legal relationship. The existence of a safety data sheet for a particular jurisdiction does not necessarily mean that import or use within that jurisdiction is legally permitted. If you have any questions, please contact your responsible sales contact or authorized trading partner.