

- Respiratory protection will be necessary only in special cases (e.g. formation of mists). A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Safety Data Sheet (SDS)

According to Regulation (EC) No 1907/2006 (REACH), Annex II(COMMISSION REGULATION (EU) No 2020/878)

aramcoULTRA 4

Date of issue: Feb. 23, 2021

Revision date: -

Version: 01

Section I – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : aramcoULTRA 4 (Base Oil 100 Neutral)
 Substance name : Distillate, hydrotreated heavy paraffinic
 EC No. : 265-157-1
 REACH Registration No. : 01-2119484627-25-####
 CAS No. : 64742-54-7

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

1.2.1. Relevant identified uses

- Lubricating Oil Base Stock

1.2.2. Primary/common uses

- Please refer to Annex (Exposure Assessment)

1.2.3. Uses advised against

- Use for recommended use only

1.2.4. Further Information

- Not available

1.3. Details of the supplier of the safety data sheet

1.3.1. Details of the supplier

Manufacturer/Supplier : S-OIL Corporation
 Address : S-Oil Bldg., 192, Baekbeom-ro, Mapo-gu, Seoul, 04196, Korea(Seoul Mapo P.O.Box 87)
 Telephone : +82 2 527 6054
 Email : baseoil@s-oil.com

1.3.2. Details of the OR

Only Representative : CRCP GmbH
 Street address/ P.O. Box : Am Römerhof 5, 60486 Frankfurt am Main, Germany
 Telephone number (if possible, indicate telefax) : +49 69 7167 3343
 E-mail address : reach@krcrp.com

1.4. Emergency telephone number

: +49 551 19240 (GIZ-Nord, Goettingen, Germany (English only))
 Opening hours : Not available
 Other comments : Not available

Section II – HAZARDS IDENTIFICATION

2.1. Classification of the substance/mixture

2.1.1. Classification according to Regulation (EC) No 1272/2008 [CLP]

- Aspiration Hazard : Category1, H304

2.2. Label elements

2.2.1. Labelling according to Regulation (EC) No 1272/2008 [CLP]

Hazard Pictogram(s)



Signal word : Danger

Hazard statement(s)

- H304 May be fatal if swallowed and enters airways.

Precautionary statement(s)

1) Prevention

- Not applicable

2) Response

- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- P331 Do NOT induce vomiting.

3) Storage

- P405 Store locked up.

4) Disposal

- P501 Dispose of contents/container in accordance with national regulations.

2.3. Other hazards

- Not available

Section III – COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances : UVCB

Name	EC No.	CAS No.	REACH registration No.	% [weight]	Classification [1272/2008/EC]
Distillate, hydrotreated heavy paraffinic	265-157-1	64742-54-7	01-2119484627-25-####	100	Asp. Tox. 1, H304

* Ingredient notes

The highly refined mineral oil contains <3% (w/w) DMSO extract, according to IP346.

3.2. Mixtures

- Not applicable

Section IV – FIRST-AID MEASURES

4.1. Description of first aid measures

4.1.1 General information

- Contact physician if discomfort continues.

4.1.2 Following inhalation

- In case of symptoms arising from inhalation of fumes, mists or vapour: Remove casualty to a quiet and well ventilated place if safe to do so
- If the casualty is unconscious and: - Not breathing – ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical assistance.- Breathing: place in recovery position. Administer oxygen if necessary.
- Obtain medical assistance if breathing remains difficult.

4.1.3 Following skin contact

- Remove contaminated clothing and footwear, and dispose of safely.
- Wash affected area with soap and water.
- Seek medical attention if skin irritation, swelling or redness develops and persists.
- (if applicable) When using high-pressure equipment, injection of product can occur. If high-pressure injuries occur, immediately seek professional medical attention. Do not wait for symptoms to develop.
- For minor thermal burns: Cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. However, body hypothermia must be avoided.
- Do not put ice on the burn; Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them.
- Seek medical attention in all cases of serious burns

4.1.4 Following eye contact

- Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing

- If irritation, blurred vision or swelling occurs and persists, obtain medical attention.
- If hot product is splashed into the eye, it should be cooled immediately to dissipate heat, under cold running water. Immediately obtain specialist medical assessment and treatment for the casualty.

4.1.5 Following ingestion/aspiration

- (if applicable) Always assume that aspiration has occurred. Seek professional medical attention or send the casualty to a hospital. Do not wait for symptoms to develop.
- Do not induce vomiting as there is a risk of aspiration.
- Do not give anything by mouth to an unconscious person.
- If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs (aspiration). Once vomiting ceases, place the person in the recovery position with the legs slightly raised.

4.1.6 Self-protection of first aider

- Not available

4.2. Most important symptoms and effects, both acute and delayed

- General information
- The severity of the symptoms described will vary dependant of the concentration and the length of exposure.

4.3. Indication of any immediate medical attention and special treatment needed

- Treat Symptomatically.

Section V – FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

- Foam (Specifically trained personnel only)
- Water fog (Specifically trained personnel only)
- Dry chemical powder
- Carbon dioxide- Other inert gases (subject to regulations)
- Sand or earth

Unsuitable extinguishing media

- Do not use direct water jets on the burning product; they could cause splattering and spread the fire.
- Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.³ Combustion Products³

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products

- Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide and unidentified organic and inorganic compounds.

5.3. Advice for firefighters

- In case of a large fire or in confined or poorly ventilated spaces wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Use water SPRAY only to cool containers.
- Do not put water on leaked material.

Section VI – ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment:

- Small spillages: normal antistatic working clothes are usually adequate.
- Large spillages: full body suit of chemically resistant and antistatic material.
- Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant, and are not suitable for emergency use.
- Work helmet. Antistatic non-skid safety shoes or boots.
- Goggles or face shield, if splashes or contact with eyes is possible or anticipated.
- Respiratory protection will be necessary only in special cases (e.g. formation of mists). A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures:

- Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages, the feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency.
- If required, notify relevant authorities according to all applicable regulations.

6.1.2. For emergency responders

- Stop or contain leak at the source if safe to do so. Avoid direct contact with released material. Stay upwind.
- It is recommended to eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares).

6.2. Environmental precautions

- Prevent product from entering sewers, rivers, waterways or other bodies of water
- If necessary dike the product with dry earth, sand or similar non-combustible materials.
- When inside buildings or confined space, ensure adequate ventilation

6.3. Methods and material for containment and cleaning up**6.3.1. For containment**

- Large spillages may be cautiously covered with foam, if available, to limit fire risk. Do not use direct jets
- Absorb spilled product with suitable non-combustible materials.
- Collect free product with suitable means. Transfer collected product and other contaminated materials to suitable tanks or containers for recycle, recovery or safe disposal.
- In case of small spillages in closed waters (i.e. ports), contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents
- If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means.

6.3.2. For cleaning up

- In case of soil contamination, remove contaminated soil for remediation or disposal according to local regulations.
- The use of dispersants should be advised by an expert, and, if required, approved by local authorities.
- Collect recovered product and other contaminated materials in suitable tanks or containers for recovery or safe disposal.

6.3.3. Other information

- Note: recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken.

6.4. Reference to other sections

- See also sections 8 and 13 of the Safety Data Sheet.

Section VII – HANDLING AND STORAGE**7.1. Precautions for safe handling**

- (Subject to applicability, CMR) Obtain special instructions before use
- Ensure that all relevant regulations regarding handling and storage facilities of combustible products are followed.
- It is recommended to keep away from sparks/open flames/hot surfaces. – No smoking.
- Use and store only outdoors or in a well-ventilated area.
- Avoid contact with the product.
- Avoid release to the environment.
- Take precautionary measures against static electricity.
- Avoid splash filling of bulk volumes when handling hot liquid product.
- Avoid contact with skin. Avoid breathing fume/mist.
- (If H 304 is applicable): Do not ingest.
- Prevent the risk of slipping.
- Ensure that proper housekeeping measures are in place.
- For more information regarding protective equipment and operational conditions for a substance which is classified according to classification notes, see exposure scenarios. These risk management measures represent a worst case.
- Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets.
- Keep away from food and beverages.
- Do not eat, drink or smoke when using this product.
- Wash the hands thoroughly after handling.
- Use personal protective equipment as required.
- Change contaminated clothes at the end of working shift.

7.2. Conditions for safe storage, including any incompatibilities

- Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation.

- Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills.
- Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations.
- Store separately from oxidising agents.
- Collected them in sealed containers.
- Store away from water and sewer.
- Recommended materials: For containers, or container linings use mild steel, stainless steel.
- Unsuitable materials: Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.
- Keep only in the original container or in a suitable container for this kind of product.
- Keep containers tightly closed and properly labelled.
- Empty containers may contain combustible product residues. Do not weld, solder, drill, cut or perform similar operations unless they have been properly cleaned.

7.3. Specific end use(s)

- See Section 1 for information on 1.2 Relevant identified uses.

Section VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parameters

8.1.1. Occupational exposure limits

EU regulation:

- Not applicable

ACGIH regulation:

- Not applicable

Biological Exposure Index(BEIs):

- Not applicable

8.1.2. Recommended Monitoring Procedures

- Personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

8.1.3. DNEL/PNEC - Values

Exposure route of relevance	DNELs, DMELs, PNECs			
	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effects
Industrial				
Human: oral	-	-	-	-
Human: inhalation	5.4 mg/m ³ /8h [aerosol]	-	-	-
Human: dermal	-	-	-	-
Professional	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effects
Human: oral	-	-	-	-
Human: inhalation	-	-	-	-
Human: dermal	-	-	-	-
Consumer	Long term, local effects	Long term, systemic effects	Short term, local effects	Short term, systemic effects
Human: oral	-	-	-	-
Human: inhalation	1.2 mg/m ³ /24h [aerosol]	-	-	-
Human: dermal	-	-	-	-
Environment: water	Substance is a hydrocarbon UVCB that does not pose a chronic aquatic hazard. PNEC derivation is not scientifically justified based on water solubility limitations.			
Environment: air	-			
Environment: soil	Substance is a hydrocarbon UVCB that does not pose a chronic hazard to sediment organisms. PNEC derivation is not scientifically justified based on water solubility limitations			
Environment: sediment	Substance is a hydrocarbon UVCB that does not pose a chronic hazard to sediment organisms. PNEC derivation is not scientifically justified based on water solubility limitations			

Environment: STP	Substance is a hydrocarbon UVCB that does not pose a chronic hazard to sediment organisms. PNEC derivation is not scientifically justified based on water solubility limitations
Environment: oral	9.33 mg/kg food

8.2. Exposure controls

8.2.1. Appropriate engineering controls

- Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
- Facilities for storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

8.2.2. Individual protection measures, such as personal protective equipment

Hand protection

- Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. Note: gloves made of PVA are not water-resistant, and are not suitable for emergency use.
- Chemical resistant gloves required for prolonged or repeated contact.

Eye protection

- Goggles or face shield, if splashes or contact with eyes is possible or anticipated.

Respiratory Protection

- Respiratory protection will be necessary only in special cases (e.g. formation of mists). A half or full-face respirator with combined dust/organic vapour filter(s), or a Self-Contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.
- In case of inadequate ventilation use suitable respirator. Wear mask supplied with: Gas cartridge suitable for organic substances.

Skin protection

- Work helmet. Antistatic non-skid safety shoes or boots.

8.2.3 Environmental exposure controls

- Ensure not to cause environmental pollution by discharging into rivers or other waterways.

Section IX – PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance(State)	Viscous Liquid
Color	Clear
Odor	Not available
Odor threshold	Not available
pH	Not available
Melting point/Freezing point	Not available
Initial boiling point and boiling range	370 to 470 °C
Flash point	≥ 210 °C (ASTM D92)
Evaporation rate	Not available
Flammability(solid, gas)	Not available
Upper/Lower Flammability or explosive limits	Not available
Vapour pressure	< 0.1 hPa (20 °C)
Solubility (ies)	Not available
Vapour density	Not available
Relative density	0.834 g/cm ³
Partition coefficient of n-octanol/water	Not available
Auto ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	18.0 ~ 20.0 cSt (40 °C), 4.0 ~ 4.5 cSt (100 °C)
Explosive properties	Not available
Oxidising properties	Not available
Molecular weight	Not available

9.2. Other information

- Not available

Section X – STABILITY AND REACTIVITY

10.1. Reactivity

- No specific reactivity hazards associated with this product.

10.2. Chemical Stability

- Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

- Hazardous Polymerization will not occur.

10.4. Conditions to avoid

- Avoid exposing to heat and contact with strong oxidising substances.

10.5. Incompatible materials

- Avoid to contact with strong oxidising substances.

10.6. Hazardous decomposition products

- Carbon monoxide (CO), Carbon dioxide (CO₂), Aldehydes, Ketones, Sulphurous gases (SO_x)

Section XI – TOXICOLOGICAL INFORMATION**11.1. Acute toxicity : Not classified**

- **Oral** : Not classified
 - Rat(male/female) LD₅₀ > 5,000 mg/kg (Read-across : Solvent dewaxed light paraffinic oil, sufficiently refined, IP 346 < 3 % (CAS No. 64742-56-9)) (OECD Guideline 401)
- **Dermal** : Not classified
 - Rabbit(male/female) LD₅₀ > 5,000 mg/kg (Read-across : Solvent dewaxed light paraffinic oil, sufficiently refined, IP 346 < 3 % (CAS No. 64742-56-9)) (OECD Guideline 402)
- **Inhalation** : Not classified
 - Rat(male/female) LC₅₀ > 5.53 mg/L/4hr air (Read-across : Solvent Extracted Paraffinic Oil (Sufficiently Refined, IP 346 < 3%)) (OECD Guideline 403)

11.2. Skin corrosion/irritation : Not classified

- In the skin irritation test with rabbits, the test material was not irritating. (Read-across : Solvent dewaxed light paraffinic oil, sufficiently refined, IP 346 < 3 % (CAS No. 64742-56-9))

11.3. Serious eye damage/irritation : Not classified

- In the eyes irritation test using rabbits, the test material was not irritating. (Read-across : Solvent dewaxed light paraffinic oil, sufficiently refined, IP 346 < 3 % (CAS No. 64742-56-9)) (OECD Guideline 405)

11.4. Respiratory sensitization : Not classified

- Not available

11.5. Skin sensitization : Not classified

- In the skin sensitization test using guinea pigs, the test material was not skin sensitizing. (OECD Guideline 406)

11.6. Carcinogenicity : Not classified*

- **IARC**
 - Not available
- **OSHA**
 - Not available
- **ACGIH**
 - Not available
- **NTP**
 - Not available
- **EU CLP**
 - Carc. 1B

*The DMSO extract by IP 346 of this substance is less than 3%. Consequently it is not classified as a carcinogen

11.7. Mutagenicity : Not classified

- Negative reactions were observed in in vitro test (Read-across : Solvent-refined hydrotreated paraffinic distillate, Solvent-refined hydrotreated heavy naphthenic distillate, sufficiently refined, IP 346 < 3 %) (Bacterial Reverse Mutation Assay(OECD Guideline 471))

- Negative reactions were observed in in vivo test (Read-across : Solvent dewaxed light paraffinic oil, sufficiently refined, IP 346 < 3 %) (Mammalian Erythrocyte Micronucleus Test(OECD Guideline 474))

11.8. Reproductive toxicity : Not classified

- In the reproductive toxicity test using rats(male/female), there were no treatment-related effects on pup body weights, sex ratios, live litter sizes, viability indices, and general physical conditions. Necropsy findings of the pups were unaffected by test article administration with either formulation. (NOAEL (P, F1) : \geq 1000 mg/kg bw/day) (Read-across : Other Lubricant Base Oil (IP 346 < 3 % (CAS No. 64742-54-7)) (OECD Guideline 421)
- In the developmental toxicity test using rats, there was no evidence of teratogenicity. There were no treatment-related changes observed during external skeletal or visceral examinations. (LOAEL : 125 mg/kg bw/day, NOAEL : 2000 mg/kg bw/day) (Read-across : Solvent refined base oil, sufficiently refined, IP 346 < 3 %) (OECD Guideline 414)

11.9. Specific target organ toxicity(single exposure) : Not classified

- In the acute oral/dermal/inhalation toxicity test, adverse effects were not observed, respectively. (OECD Guideline 401) (OECD Guideline 402) (OECD Guideline 403)

11.10. Specific target organ toxicity(repeated exposure) : Not classified

- Sufficiently refined other lubricant base oils (IP 346 < 3%) are not classified according to EU CLP for repeat-dose toxicity.
- Rat(male) LOAEL = 125 mg/ kg bw/day (oral) (Read-across : Heavy paraffinic distillate aromatic extract (CAS No. 64742-04-7)) (OECD Guideline 408)
- Rat(male/female) NOAEL \geq 2,000 mg/kg bw/day (dermal) (OECD Guideline 411)
- Rat(male/female) NOAEL > 980 mg/m³ air (inhalation) (OECD Guideline 412)

11.11. Aspiration hazard : Category 1*

- May be fatal if swallowed and enters airways.
- *Classification on basis substance is a hydrocarbon and has a kinematic viscosity of 20.5 mm²/s or less, measured at 40°C.

Section XII – ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Acute toxicity

Fish :

- 96hr-LC₅₀(*Pimephales promelas*) > 100 mg/L (OECD Guideline 203)

Crustacean :

- 48hr-EL₅₀(*Daphnia magna*) > 10,000 mg/L (OECD Guideline 202)

Algae :

- 72hr-NOEL(*Pseudokirchneriella subcapitata*) \geq 100 mg/L (OECD Guideline 201)

12.1.2. Chronic toxicity

Fish :

- 14day-NOELR(*Oncorhynchus mykiss*) \geq 1,000 mg/L (QSAR)

Crustacean :

- 21day-NOEL(*Daphnia magna*) = 10 mg/L (OECD Guideline 211)

Algae :

- 72hr-NOEL(*Pseudokirchneriella subcapitata*) \geq 100 mg/L (OECD Guideline 201)

12.2. Persistence and degradability

12.2.1. Persistence

- Substance is a hydrocarbon UVCB. Standard tests for log octanol-water partition coefficient are intended for single substances and are not appropriate for this complex substance. However, this endpoint is characterized for representative hydrocarbon structures that comprise the hydrocarbon blocks used to assess the environmental risk of this substance with the PETRORISK model (see library tab in PETRORISK spreadsheet attached in IUCLID Section 13).

12.2.2. Degradability

- Not available

12.3. Bioaccumulative potential

12.3.1. Bioaccumulation

- Substance is a hydrocarbon UVCB. Standard tests for this endpoint are intended for single substances and are not appropriate for this complex substance.

12.3.2. Biodegradability

- Substance is a hydrocarbon UVCB. Test results for biodegradation in water are used for classification. For the purpose of risk assessment, this endpoint is characterized using quantitative structure property relationships for representative hydrocarbon structures that comprise the hydrocarbon blocks. The environmental risk of this substance is assessed using the PETRORISK model (see Product Library in PETRORISK spreadsheet attached to IUCLID Section 13).

- As not well-biodegraded, it is expected to have high accumulation potential in living organisms (31.13% biodegradation was observed after 28 days) (OECD Guideline 301F) (Solvent Neutral 600 Base Oil (MRD-94 -981), Exxon, 1995a).

- As not well-biodegraded, it is expected to have high accumulation potential in living organisms (2 - 4% biodegradation was observed after 28 days) (OECD Guideline 301B) (Other lubricant base oil (GOHC 1468), (BP Limited International, 1990).

12.4. Mobility in soil

- Not available

12.5. Results of PBT and vPvB assessment

- Anthracene is not present in this substance at greater than 0.1% (CONCAWE, 2010b). No other representative hydrocarbon structures were found to meet the PBT / vPvB criteria.

12.6. Other adverse effects

- Not available

12.7. Additional information

- Not available

12.8. Hazardous for the ozone layer

- Not classified

Section XIII – DISPOSAL CONSIDERATION

13.1. Waste treatment methods

Product/Packaging disposal

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

Waste codes / Waste designation according to LoW(2015) : 13 01 10

Waste treatment-relevant information

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

Sewage disposal-relevant information: Not available

Other disposal recommendations: Not available

Section XIV – TRANSPORTATION INFORMATION

14.1. UN No.

- Not applicable

14.2. UN proper shipping name

- Not applicable

14.3. Transport Hazard class

- Not applicable

14.4. Packing group

- Not applicable

14.5. Environmental hazards

- Not applicable

14.6. Special precautions for user

in case of fire : Not applicable

in case of leakage : Not applicable

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

- Not available

Section XV – REGULATORY INFORMATION

15.1. Safety, health and environmental regulation / legislation specific for the substance or mixture

15.1.1. EU regulations

15.1.1.1 Harmonized classification – Annex VI of Regulation (EC) No 1272/2008 (CLP Regulation):

- Carc. 1B H350

15.1.1.2 Authorisations and/or restrictions on use:

Authorisations: Not regulated

Restrictions on use: Not regulated

15.1.1.3 Other EU regulations:

EU SVHC list : Not regulated

15.1.2. External information

Substance of Rotterdam Convention: Not regulated

Substance of Stockholm Convention: Not regulated

Substance of Montreal Protocol : Not regulated

German Water Hazard Class (WGK) : 1

15.2. Chemical Safety Assessment

- Please refer to Annex (Exposure Assessment)

Section XVI – OTHER INFORMATION

16.1. Indication of changes

Date Updated : 15 Jan. 2021

Version : Rev. 00

16.2. Abbreviations and acronyms

ACGIH = American Conference of Government Industrial Hygienists

CLP = Classification Labelling Packaging Regulation ; Regulation (EC) No 1278/2008

CAS No. = Chemical Abstracts Service number

DMEL = Derived Minimal Effect Levels

DNEL = Derived No Effect Level

EC Number = EINECS and ELINCS Number (see also EINECS and ELINCS)

EU = European Union

IARC = International Agency for Research on Cancer

NTP = National Toxicology Program

OSHA = European Agency for Safety and Health at work

PBT = Persistent, Bioaccumulative and Toxic substance

PNEC(s) = Predicted No Effect Concentration(s)

REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 2020/878

STP = Sewage Treatment Plant

SVHC = Substances of Very High Concern

vPvB = Very Persistent and Very Bioaccumulative

UN = United Nations

MARPOL = International Convention for the Prevention of Pollution from Ships (IMO)

IBC = Intermediate Bulk Container

EINECS = European Inventory of Existing Commercial chemical Substances

ELINCS = European List of Notified Chemical Substances

16.3. Key literature references and sources for data

UN Recommendations on the transport of dangerous goods 17th;

UN Recommendations on the transport of dangerous goods 17th;

https://www.unece.org/trans/danger/publi/unrec/rev20/20files_e.html

EU CLP; <https://echa.europa.eu/information-on-chemicals/cl-inventory-database>

REACH information on registered substances; <https://echa.europa.eu/information-on-chemicals/registered-substances>

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans; <http://monographs.iarc.fr>

National Toxicology Program; <https://ntp.niehs.nih.gov/whatwestudy/assessments/cancer/roc/index.html>

TOMES-LOLI@; <http://www.rightanswerknowledge.com/loginRA.asp>

16.4. Classification and procedure used to derive the classification for mixtures according to Regulation(EC) 1272/2008(CLP)

- Asp. Tox. 1

16.5. Relevant H-statements

- H304 : May be fatal if swallowed and enters airways.

16.6. Training advice

- Do not handle until all safety precautions have been read and understood.

16.6. Further information

- This safety data sheet (SDS) is based on the legal provisions of the REACH Regulation, as amended. Its contents are intended as a guide to the appropriate precautionary handling of the material. It is the responsibility of recipients of this SDS to ensure that the information contained therein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with the product. Information and instructions provided in this SDS are based on the current state of scientific and technical knowledge at the date of issue indicated. It should not be construed as any guarantee of technical performance, suitability for particular applications, and does not establish a legally valid contractual relationship. This version of the SDS supersedes all previous versions.