SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name:	Bisphenol A
Substance name:	4,4'-isopropylidenediphenol
EC number:	201-245-8
CAS number:	80-05-7
REACH Registration number:	01-2119457856-23

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

Use of the substance/mixture
An intermediate in production of other chemicals (resins/polymers) (industrial use).

Uses advised against
Do not use for thermal papers.

1.3. Details of the supplier of the safety data sheet

Company
SysKem Chemie GmbH
Brucknerweg 26
D-42289 Wuppertal

Telephone	+49 (0) 202/30999510
Telefax	+49 (0) 202/87088403
E-mail address	info@syskem.de

Prepared by / E-mail address of person responsible for the SDS
info@syskem.de

1.4. Emergency telephone number

Vergiftungs-Informations-Zentrale Freiburg, Tel. +49 761 19240.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]
Eye Damage 1; H318
Skin Sens. 1; H317
Repr. 1B; H360F
STOT Single Exp. 3; H335
Aquatic Chronic 2; H411

Full text of H- and EUH-statements: see section 16

2.2. Label elements

Hazard pictograms (CLP)

Signal word (CLP)
Danger

Hazard statements (CLP)
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H360F - May damage fertility.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements (CLP)
P201 - Obtain special instructions before use.
P261 - Avoid breathing dust.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 - Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 - IF exposed or concerned: Get medical advice/attention.
P501 - Dispose of contents/container in accordance with local/ regional/national/international regulation.

2.3. Other hazards

The substance can be absorbed into the body by ingestion. Harmful if swallowed.
The substance does not meet the criteria for PBT/vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name	CAS	EC	Index	Cont. [%]	Classification according to Regulation (EC) No. 1272/2008 [CLP]
4,4'-isopropylidenediphenol*	80-05-7	201-245-8	604-030-00-0	≥99	Eye Damage 1; H318 Skin Sens. 1; H317 Repr. 1B; H360F STOT SE 3; H335 Aquatic Chronic 2; H411

Full text of abbreviated H-phrases are given in Section 16
* - SVHC substance

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation: If a person breathes in large amounts of this chemical, move the exposed person to fresh air at once. Keep the affected person at rest. Get medical attention.
Skin contact: Remove contaminated clothes. Rinse skin with plenty of water or shower.
Eye contact: First rinse with plenty of water for several minutes. Remove contact lenses if easily possible. Get medical attention.
Ingestion: DO NOT INDUCE VOMITING. If the affected person is conscious and not convulsing, give 1 or 2 glasses of water to dilute the chemical and IMMEDIATELY call a hospital or poison control center. Be prepared to transport the affected person to a hospital if advised by a physician.
If the affected person is convulsing or unconscious, do not give anything by mouth, ensure that the affected person's airway is open and lay the affected person on his/her side with the head lower than the body. DO NOT INDUCE VOMITING. IMMEDIATELY transport the affected person to a hospital.
Protection of first-aiders: No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

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

Skin contact: may cause irritation skin sensitization.
Eye contact: irritation to burns.
Inhalation: irritation respiratory tract. Inhalation to high concentrations of dust may cause sore throat, cough.
Ingestion: vomiting; gastritis.

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

Treat symptomatically. For special medical treatment and/or advice immediately refer to medical professionals.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media: water spray, foam, dry chemical, carbon dioxide.
Unsuitable extinguishing media: do not use water jet (straight streams) to extinguish.

5.2. Special hazards arising from the substance or mixture

Combustible.
Decomposition products may contain the following materials: carbon oxides, toxic and irritant fumes. Finely dispersed particles may form explosive mixtures in air.

5.3. Advice for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Use water spray to knock down fire fumes if possible. This material is toxic to aquatic organisms. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Minimize number of personnel in risk area. Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Do not touch or walk through spilled material. Do not handle broken packages without protective equipment. Wash away any material, which may have contacted the body with copious amounts of water or soap and water. Keep sparks, flames, and other sources of ignition away.
If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials.

6.2. Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). May be harmful to the environment if released in large quantities.

6.3. Methods and material for containment and cleaning up

Evacuate and restrict persons not wearing protective equipment from area of spill or leak until cleanup is complete. Remove all ignition sources. Vacuum cleaning is preferable to sweeping to keep dust levels down. Use special approved vacuum cleaners or collect mechanically using available equipment. Ventilate area of spill or leak after cleanup is complete. If employees are required to clean up spills, they must be properly trained and equipped.

6.4. Reference to other sections

See Section 8 for information on appropriate personal protective equipment.
See Section 13 for additional waste treatment information.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Normal measures for preventive fire protection. Keep sparks, flames, and other sources of ignition away. No smoking. Take measures to prevent the build up of electrostatic charge. Avoid inhalation of dust or mist. Avoid contact with skin and eyes. Use in a well ventilated area. Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink, or smoke during work. Wash hands before eating, after handling the substance, before breaks and at the end of workday. Wash skin: The worker should immediately wash the skin when it becomes contaminated.
See also Section 8 for additional information on hygiene measures.

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks, and flames. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Store separated from strong oxidizers, acids, alkalis. Store separated from food and feedstuffs. Store in an area without drain or sewer access.

7.3. Specific end use(s)

According with the exposure scenario.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Substance: 4,4'-isopropylidenediphenol (Bisphenol A), CAS No. 80-05-7

Country	Limit value – 8 hours [mg/m 3]	Limit value - Short term [mg/m 3]	Legal Basis
European Union	10 (inhalable aerosol)		Indicative Occupational Exposure Limits
Austria	5 (inhalable aerosol)	5 (inhalable aerosol)	Maximum Workplace Concentrations
Belgium	10		Occupational exposure limits
France	10		Occupational exposure limit values for occupational exposure to chemical agents in France
Germany	5 (inhalable aerosol)	5 (inhalable aerosol)	The German Committee on Hazardous Substances (Ausschuss fur Gefahrstoffe – AGS)
Netherlands	10		Limit values/The Netherlands: Dutch Legal Public Limit Values
Poland	5	10	The Interdepartmental Commission for Maximum Admissible Concentrations and Intensities for Agents Harmful to Health in the Working Environment
Spain	10		Spanish legislation on chemical agents (Royal Decree 374/2001 transposing Directive 98/24/EC)
Switzerland	5 (inhalable aerosol)	5 (inhalable aerosol)	No data available

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference should be made to European Standard EN 689 for methods for the assessment of exposure by inhalation to chemical agents and national guidance documents for methods for the determination of hazardous substances.

DN(M)ELs for workers:

Acute - systemic effects	Dermal	1,4 mg/kg bw/day
Acute - systemic effects	Inhalation	10 mg/m3
Acute - local effects	Inhalation	10 mg/m3
Long-term - systemic effects	Dermal	1,4 mg/kg bw/day
Long-term - systemic effects	Inhalation	10 mg/m3
Long-term - local effects	Inhalation	10 mg/m3

DN(M)ELs for the general population

Acute - systemic effects	Dermal	0,7 mg/kg bw/day
Acute - systemic effects	Inhalation	5 mg/m3
Acute - systemic effects	Oral	0,05 mg/kg bw/day
Acute - local effects	Inhalation	5 mg/m3
Long-term - systemic effects	Dermal	0,7 mg/kg bw/day
Long-term - systemic effects	Inhalation	0,25 mg/m3
Long-term - systemic effects	Oral	0,05 mg/kg bw/day
Long-term - local effects	Inhalation	5 mg/m3

PNECs:

PNEC aqua (freshwater	0,018 mg/L
PNEC aqua (marine water):	0,016 mg/L
PNEC aqua (intermittent releases)	0,01 mg/L
PNEC sediment (freshwater)	2,2 mg/kg sediment dw
PNEC sediment (marine water)	0,44 mg/kg sediment dw

8.2. Exposure controls

Should be sufficient to reduce exposures below the workplace standards for this chemical established by the national regulations to the lowest level achievable.

Individual protection measures:
Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Eye protection: If there is a potential that this chemical can come in contact with eye or skin, appropriate eye goggles and skin protective equipment shall be provided and used.
Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

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

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

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	solid
Colour:	white
Odour:	mild phenolic odor
Melting point/freezing point:	156,7 °C
Boiling point or initial boiling point and boiling range:	220 °C
Flammability:	not available
Lower and upper explosion limit:	not applicable
Flash point:	207 °C
Auto-ignition temperature:	510 °C
Decomposition temperatur:	not available
pH:	not available
Kinematic viscosity:	not applicable
Solubility:	in water: 0,3 g/L at 25 °C
Partition coefficient n-octanol/water:	3,3
Vapour pressure	27 Pa at 170°C
Density and/or relative density:	1,17 g/cm 3
Relative vapour density:	not available
Particle characteristics:	crystals or flakes

9.2 Other information

No additional information.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

The product is stable.

10.3. Possibility of hazardous reactions

Reacts violently with acid anhydrides, acid chlorides, strong bases and strong oxidants.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizers, acids, alkalis.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	LD50 (oral, rat): >2000 LD50 (dermal, rabbit): 3000 mg/kg bw LC50 (inhalation, rat): 0,17 mg/l
Skin corrosion/irritation	No known significant effects or critical hazards.
Serious eye damage/irritation	Causes serious eye damage.
Respiratory or skin sensitisation	May cause an allergic skin reaction.
Germ cell mutagenicity	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.
Fertility effects	May damage fertility.
Specific target organ toxicity — single exposure	May give off gas, vapor or dust that is very irritating or corrosive to the respiratory system.
Specific target organ toxicity — repeated exposure	No known significant effects or critical hazards.
Aspiration hazard	Not applicable.

11.2 Information on other hazards

Endocrine disrupting properties

No data available.

Other information

No additional information available

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish	LC50 (96 h): 4,6 mg/L - Pimephales promelas,, freshwater LC50 (96 h): 9,4 mg/L – Menidia menidia saltwater NOEC (444 d): 0,016 mg/L - Pimephales promelas,, freshwater
Toxicity to aquatic invertebrates	LC50 (48 h): 10,2 mg/L - Daphnia magna, freshwater LC50 (96 h): 1,1 mg/L – Americamysis bahia, saltwater NOEC (328 d): 0,025 mg/L - Daphnia magna, freshwater
Toxicity to algae and aquatic plants	EC50 (96 h): 2,73 mg/L - Pseudokirchnerella subcapitata, freshwater EC50 (96 h): 1,1 mg/L - Skeletonema costatum, saltwater NOEC (7 d): ca. 1,1 mg/L - Lemna gibba (aquatic plants), freshwater

2.2 Persistence and degradability

Biodegradation in water: 88% after 28 d (O 2 consumption, TOC removal) – readily biodegradable

12.3 Bioaccumulative potential

Bisphenol A has low potential for bioaccumulation based on laboratory bioconcentration factors of less then or equal to 72 L/kg in fish (Log BCF =1,86)

12.4 Mobility in soil

Bisphenol A is expected to absorb somewhat to soil and sediment and not migrate through groundwater.

12.5 Results of PBT and vPvB assessment

Not applicable.

12.6 Endocrine disrupting properties

Not applicable.

12.7 No known significant effects or critical hazards.

No additional information available

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
The classification of the product may meet the criteria for a hazardous waste.

Packaging: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

14.1. UN-Number

ADR/RID, ADN, IMDG, IATA	3077

14.2. UN proper shipping name

ADR/RID	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol A)
ADN	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol A)
IMDG	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol A)
IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bisphenol A)

14.3. Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA	Class 9

14.4. Packing group

ADR/RID, ADN, IMDG, IATA	III

14.5. Environmental hazards:

ADR/RID, ADN, IMDG, IATA	Yes
Marine pollutant	Yes

14.6. Special precautions for user

Overland transport

Classification code (ADR)	M7
Special provisions (ADR)	274, 335, 375, 601
Limited quantities (ADR)	5kg
Excepted quantities (ADR)	E1
Packing instructions (ADR)	P002, IBC08, LP02, R001
Special packing provisions (ADR)	PP12, B3
Mixed packing provisions (ADR)	MP10
Portable tank and bulk container instructions (ADR)	T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (ADR)	TP33
Tank code (ADR)	SGAV, LGBV
Vehicle for tank carriage	AT
Transport category (ADR)	3
Special provisions for carriage - Packages (ADR)	V13
Special provisions for carriage - Bulk (ADR)	VC1, VC2
Special provisions for carriage - Loading, unloading and handling (ADR)	CV13
Hazard identification number (Kemler No.)	90
Orange plates	90/3077
Tunnel restriction code (ADR)	-
EAC code	2Z

Transport by sea

Special provisions (IMDG)	274, 335, 966, 967, 969
Limited quantities (IMDG)	5 kg
Excepted quantities (IMDG)	E1
Packing instructions (IMDG)	LP02, P002
Special packing provisions (IMDG)	PP12
IBC packing instructions (IMDG)	IBC08
IBC special provisions (IMDG)	B3
Tank instructions (IMDG)	BK1, BK2, BK3, T1
Tank special provisions (IMDG)	TP33
EmS-No. (Fire)	F-A
EmS-No. (Spillage)	S-F
Stowage category (IMDG)	A
Stowage and handling (IMDG)	SW23

Air transport

PCA Excepted quantities (IATA)	E1
PCA Limited quantities (IATA)	Y956
PCA limited quantity max net quantity (IATA)	30kgG
PCA packing instructions (IATA)	956
PCA max net quantity (IATA)	400kg
CAO packing instructions (IATA)	956
CAO max net quantity (IATA)	400kg
Special provisions (IATA)	A97, A158, A179, A197, A215
ERG code (IATA)	9L

Inland waterway transport

Classification code (ADN)	M7
Special provisions (ADN)	274, 335, 375, 601
Limited quantities (ADN)	5 kg
Excepted quantities (ADN)	E1
Carriage permitted (ADN)	T* B**
Equipment required (ADN)	PP, A***
Number of blue cones/lights (ADN)	0
Additional requirements/Remarks (ADN)	* Only in the molten state. ** For carriage in bulk see also 7.1.4.1. ** * Only in the case of transport in bulk.

Rail transport

Classification code (RID)	M7
Special provisions (RID)	274, 335, 375, 601
Limited quantities (RID)	5kg
Excepted quantities (RID)	E1
Packing instructions (RID)	P002, IBC08, LP02, R001
Special packing provisions (RID)	PP12, B3
Mixed packing provisions (RID)	MP10
Portable tank and bulk container instructions (RID)	T1, BK1, BK2, BK3
Portable tank and bulk container special provisions (RID)	TP33
Tank codes for RID tanks (RID)	SGAV, LGBV
Transport category (RID)	3
Special provisions for carriage – Packages (RID)	W13
Special provisions for carriage – Bulk (RID)	VC1, VC2
Special provisions for carriage - Loading, unloading and handling (RID)	CW13, CW31
Colis express (express parcels) (RID)	CE11
Hazard identification number (RID)	90

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable.

SECTION 15: Regulatory information

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

EU Regulation (EC) No. 1907/2006 (REACH)
EU Regulation (EC) No. 1272/2008 (CLP)
Commission Regulation (EU) 2020/878

Substances of very high concern (SVHC):
This product is a substance of very high concern according to Regulation (EC) No 1907/2006 (REACH), Article 59.

15.2 Chemical safety assessment:

A chemical safety assessment has been carried.

SECTION 16: Other information

List of abbreviations and acronyms
ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS - Chemical Abstracts Service
DNEL - The derived no-effect level
EINECS - European Inventory of Existing Commercial Chemical Substances
ELINCS - European List of Notified Chemical Substances
LC50 - The median lethal dose
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
EC - EINECS and ELINCS
PBT - Persistent, Bioaccumulative and Toxic
vPvB - very Persistent and very Bioaccumulative
SCBA - Self-Contained Breathing Apparatus
PNEC(s)- Predicted No Effect Concentration(s)
Kow - octanol-water partition coefficient
Koc - soil organic carbon coefficient
NOEC - No Observed Effect Concentration
SVHC - Substances of very high concern

Full text of abbreviated H statements
H317 - May cause an allergic skin reaction.
H318 - Causes serious eye damage.
H335 - May cause respiratory irritation.
H360F - May damage fertility.
H400 - Very toxic to aquatic life.
H410 - Very toxic to aquatic life with long lasting effects.

Full text of classifications
Eye Damage 1 - Serious eye damage
Skin Sens. 1 - Skin sensitization
Repr. 1B - Reproductive toxicity
STOT SE 3 - Specific target organ toxicity — single exposure
Aquatic Chronic 2 - Hazardous to the aquatic environment

Indication of changes
Alignment with Regulation: Regulation (EC) No 1907/2006 (REACH) as amended by 2020/878/EU.
Complete revision.

Key literature references and sources for data:
Chemical Safety Report for Bisphenol A

Training advice for workers
See information contained in the Safety Data Sheet.

Notice to user:
The information in this SDS is based on the present state of our knowledge and on current laws. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. The information in this SDS is meant to be a description of the safety requirements for our product. It is not to be considered a guarantee of the product's properties.

Exposure Scenarios addressing uses carried out by workers

1. Intermediate in production of other substances – INDUSTRIAL USE [ES1]	
Free short title:	An intermediate in production of other chemicals (resins/ polymers) – INDUSTRIAL USE
Systematic title based on the descriptor	Sectors of Use: SU 3: Industrial uses: Uses of substances as such or in preparations at industrial sites SU 10: Formulation [mixing] of preparations and/or re-packaging (excluding alloys) SU 11: Manufacture of rubber products SU 12: Manufacture of plastics products, including compounding and conversion Product category: PC 19: Intermediate PC 32: Polymer preparations and compounds
Processes, tasks activities covered	PROC 1: Use in closed process, no likelihood of exposure PROC 2: Use in closed, continuous process with occasional controlled exposure PROC 3: Use in closed batch process (synthesis or formulation) PROC 8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities
Assessment Method	Qualitative Risk Assessment (Tier I Risk Assessment)
2. Operational conditions and risk management measures	
Occupational Exposure: OELs currently adopted by the national/regional competent authority shall apply. DNEL/DMEL from the CSR: The following critical DN(M)ELs are proposed for human exposure to diphenylolpropane: General public exposure: DMEL=0.05 mg /kg bw/day. (Note: These values are not legally binding and referred here for recommendation purpose only. All currently adopted by the national/regional competent authority levels on safe exposure to this chemical shall apply).	
Environmental Release Characterization: ERC 6a: Industrial use resulting in manufacture of another substance (use of intermediates) ERC 6c: Industrial use of monomers for manufacture of thermoplastics ERC 6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers	

2.1 Control of workers exposure	
Product characteristic:	Physical state: 4,4'-isopropylidenediphenol is a non volatile solid substance which is insoluble in water.
Risk management measures related to the design of product:	❍ Avoid inhalation to dust and mists/ aerosols, skin and eye contact. ❍ Use Personal Protective Equipment as required. ❍ Use in a well ventilated area ❍ Keep sparks, flames, and other sources of ignition away.No smoking. Take measures to prevent the build up of electrostatic charge. ❍ Handle in accordance with good industrial hygiene andsafety practice. Do not eat, drink, or smoke during work.Wash hands before eating, after handling the substance,before breaks and at the end of workday.
Amounts used:	Not specifically defined
Frequency and duration of use/exposure	8-hour work shift, Not specifically defined
Human factors not influenced by risk management	Respiration volume under conditions of use: Heavy work, respiration volume = 30 m3/8h-day; Light work, respiration volume = 10 m3/8h-day - Default values (ECHA Guidance on CSA Chapter R.15, Section R 8.4.2
Other given operational conditions affecting workers exposure	General Local Exhaust Ventilation relevant to industrial work environment
Technical conditions and measures at process level (source) to prevent release:	Occupational exposure may arise at operations where the substance is used, including storage, loading/unloading areas, leaks in the conveyor systems, loading mixers, maintenance and cleaning operations.
Technical conditions and measures to control dispersion from source towards the worker:	❍ Engineering controls and good work practices; ❍ Regular monitoring for leak detection; ❍ Use of Respiratory Protection; ❍ Protective clothing and equipment; ❍ Hazard communication; ❍ Housekeeping and Hygiene Facilities

2.2 Control of environmental exposure	
Product characteristics	Physical state: 4,4'-isopropylidenediphenol is a non volatile solid substance which is insoluble in water
Amounts used	Not specifically defined
Frequency and duration of use	Not specifically defined 365 d/y Assuming continuous industrial process.
Technical conditions and measures at process level (source) to prevent release	❍ Engineering controls and good work practices; ❍ Regular monitoring for leak detection; ❍ Hazard communication; ❍ Housekeeping and Hygiene Facilities.
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil	Emissions related measures: Apply all necessary RMM to ensure compliance with relevant national or regional legislation requirements. Waste related measures: This substance, when discarded or disposed of, is a hazardous waste. The transportation, storage, treatment, and disposal of the waste material must be conducted in compliance with local regulations for hazardous wastes. Disposal can occur only in properly permitted facilities. Check state and local regulation of any additional requirements for disposal conditions.
3. Exposure estimation and reference to its source	
Workers exposure:	Occupational exposure may arise at operations where the substance is used, including storage, loading/unloading areas, leaks in the conveyor systems, loading mixers, maintenance and cleaning operations.
4. Guidance to DU to evaluate whether he works inside the boundaries set by the ES	
Workers exposure:	Use in industrial process. Applying all necessary RMM to reduce exposure to 4,4'-isopropylidenediphenol and ensure compliance with relevant occupational exposure limits.