REACH SIDC study – List of annexes

- ✓ Annex I – List of complex substances
- ✓ Annex II – Sample set
- ✓ Annex III – Substance Identity Information protocol template
- ✓ Annex IV – Substance group evaluation protocol template
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- ✓ Annex VII – Sector-specific substance identity factsheets
  - Factsheet - Coal-derived substances
  - Factsheet - Combustion Process Products
  - Factsheet - Olefins
  - Factsheet - Organic pigments and dyes
  - Factsheet - Resins
  - Factsheet - Substances originating from plants and animals – Derivates
  - Factsheet - Zeolites

✓ Substance Group Evaluation Protocols – Type evaluation

- **1. Inorganic substances**
  - 1.1 – Inorganic substances - Combustion process products
  - 1.2 – Inorganic substances - Substances originating from metallurgy processes
  - 1.3 – Inorganic substances - Substances originating from calcination and smelting processes
  - 1.4 – Inorganic substances - Other inorganic substances

- **2. Organic substances**
  - 2.1 – Organic substances - Substances with variability in alkyl chain length
  - 2.2 – Organic substances - Petroleum-derived substances
  - 2.3 – Organic substances - Coal-derived substances
  - 2.4 – Organic substances - Other organic substances

- **3. Substances of biological origin**
  - 3.1 – Substances of biological origin - Substances originating from fermentation processes
  - 3.2 – Substances of biological origin - Substances originating from plants and animals

- **4 - Other substances**
  - 4.1 – Chemicals with organic and inorganic part
  - 4.2 – Organic-inorganic salts
  - 4.3 – Others

✓ Substance Identity Information Protocols

➢ 1. Inorganic

► 1.1 Combustion

1.1.1 - Inorganic - Combustion - **Combustion process products**

- ID 681 – Ashes (residues), rice husk
- ID 950 – Ashes (residues), cenospheres
- ID 4944 – Product of Semi-Dry Absorption method of Flue Gas Desulphurization (SDA Product)
- ID 4990 – The product from the burning of a combination of carbonaceous materials
- Substance identification in REACH – Cenospheres
- Product for Flue Gas Desulphurization – Semi-Dry Absorption method

► 1.2 Metallurgy

1.2.1 - Inorganic – Metallurgy – **Dusts**

- ID 658 – Flue Dust, zinc-refining
- Complex zinc rich flue dust – Constituents

1.2.2 – Inorganic – Metallurgy – **Leaches sluges and residues**

- ID 648 – Wastewater, zinc sulfate electrolytic, acid
- ID 648 – Composition of the substance
- ID 656 – Slimes and Sludges, zinc sulfate electrolytic
- ID 656 – Composition of the substance
- ID 663 – Residues, zinc smelting
- ID 663 – Composition of the substance
- ID 856 – Leach residues, zinc ore, lead-containing.
- ID 856 – Composition of the substance
- ID 1047 – Residues, copper-iron-lead-nickel matte, sulphuric acid-insol.
- Lead Consortium

1.2.3 – Inorganic – Metallurgy – **Slags**

- ID 327 – Slags, ferrous metal, blast furnace
- ID 646 – Lead alloy, base, Pb, Sn, dross
- ID 646 – Lead REACH Consortium
- ID 5031 – Slags, steelmaking, elec. Furnace (carbon steel production)
- ID 9768 – Lead, dross, antimony-rich
- ID 9768 – Lead REACH Consortium
- ID 10048 – Mill scale (ferrous metal)

1.2.4 – Inorganic – Metallurgy – **Others**

- ID 360 – Matte, copper
- ID 706 – Matte, lead

- ID 1011 – Waste solids, precious metal refining
- ID 4769 – Aanode, copper
- ID 5016 – Se-Te-Concentrate
- ID 9644 – Iron sinter

► 1.3 Calcination

1.3.1 – Inorganic – Calcination – **Inorganic pigments**
- ID 5078 – Reaction mass of Willemite, white and zinc iron chromite brown spinel
- ID 9439 – Hematite, chromium green black
- ID 9636 – Iron cobalt chromite black spinel
- ID 10344 – Nickel iron chromite black spinel
- ID 11694 – Zinc iron chromite brown spinel

1.3.2 – Inorganic – Calcination – **Mixed metal oxides**
- ID 9617 – Synthetic Rutile
- ID 10056 – Molybdenum sulphide (MoS2), roasted
- ID 10056 – Molybdenum Consortium

1.3.3 – Inorganic – Calcination – **Silicates**
- ID 41 – Silicic acid, aluminium sodium salt
- ID 45-46-47 – Silicic acid, calcium salt
- ID 45-46-47 – Industry Consortium SAS for REACH
- ID 175 – Silicic acid, titanium salt
- ID 175 – Compliance check of registration
- ID 457 – Flue dust, Portland cement
- ID 9390-9391 – Glass, oxide, chemicals

► 1.4 Other inorganic substances

1.4.1 – Inorganic – Other inorganic substances – **Inorganic salts**
- ID 5002 – Reaction product of lead chloride or lead sulphate with alkaline solution
- ID 10709 – Polysulfides, bis[3-(triethoxysilyl)propyl]
- ID 11206 – Superphosphates

1.4.2 – Inorganic – Other inorganic substances – **Zeolites**
- ID 4905 – Zeolite, silica rich, crystalline, synthetic, non-fibrous
- ID 11668 – Zeolite, cuboidal, crystalline, synthetic, non-fibrous

1.4.3 – Inorganic – Other inorganic substances – **Others**
- ID 386 – Sulfite liquors and Cooking liquors, green
- ID 943 – Oil shale, thermal processing waste
- ID 4981 – Silver electrolyte
- ID 4994 – Materials for reclaim, precious metal production by-products
- ID 4998 – Materials for reclaim, Precious Metals in Bricks, Pots, Crucibles and trays, etc.

- **2. Organic**

  - 2.1 Substances with variability in alkyl chain length

    2.1.1 – Organic – Substances with variability in alkyl chain length – **Acid Alkyl derivates** *(no content)*

    2.1.2 – Organic – Substances with variability in alkyl chain length – **Acids and Salts**
    - ID 353 – Fatty acids, C12-18
    - ID 623 – Soaps, stocks, vegetable-oil, acidulated
    - ID 797-798 – Fatty acids, C18 unsatd.
    - ID 850 – Fatty acids, C16-18, zinc salts
    - ID 4260 – Fatty acids, tall oil, oligomeric reaction products with maleic anhydride and rosin, calcium

    2.1.3 – Organic – Substances with variability in alkyl chain length – **Alcohols and Chlorides** *(no content)*

    2.1.4 – Organic – Substances with variability in alkyl chain length – **Alkyl derivates**
    - ID 578 – 2,5-Furandione, dihydro-, mono-C15-20-alkenyl
    - ID 730 – Benzene, mono-C10-13-alkyl derivs., distn.
    - ID 730 – SIP
    - ID 4955 – Reaction products of 1H-Imidazole-1-ethanole, 4,5-dihydro, 2-(C7-C17 odd-numbered, C17-unsatd.alkyl) derivs. and sodium hydroxide and chloroacetic acid

    2.1.5 – Organic – Substances with variability in alkyl chain length – **Esters**
    - ID 366 – Fatty acids, C16-18 and C18-unstatd., Me esters
    - ID 437-439 – Fatty acids, C5-10, esters with pentaerythritol
    - ID 1056 – Fatty acids, C6-24 and C6-24-unsatd., Me esters, distn. residues

    2.1.6 – Organic – Substances with variability in alkyl chain length – **Nitrogen Derivates**
    - ID 4358 – Fatty acids, C18 unsat, reaction products with diethylenetriamine
    - ID 4959 – 1-Propanaminium, 3-amino-N-(carboxymethyl)-N, N-dimethyl., N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts
    - ID 5000 – Amides, C16-C18 (even numbered)
    - ID 5179 – Quaternary ammonium compounds, benzyl-C16-C18 (even numbered)-alkyldimethyl, chlorides

    2.1.7 – Organic – Substances with variability in alkyl chain length – **Others**
    - ID 1415-1425 – Reaction mass (or mixture of) of bis(2,2,6,6-tetramethyl-1-octyloxypiperidin-4-yl)-1,10-decanedioate and 1,8-bis[(2,2,6,6-tetramethyl-4-((2,2,6,6,-tetramethyl-1-octyloxypiperidin-4-yl)-decan-1,0-dioyl)piperidin-1-yl)oxy]octane
    - ID 2682 – Reaction mixture of hydrogenated tallow alkyl amines with sebacic acid and barium hydroxide

► 2.2 Petroleum derived substances

2.2.1 – Organic – Petroleum derived substances – **Alkyl aryl sulphonic acid, sulphonates**

- ID 197 – Sulfanic acids, petroleum, calcium salts
- ID 432 – Benzenesulfonic acid, C10-13-alkyl derivs, sodium
- ID 770 – Benzenesulfonic acid, 4-C10-13-sec-alkyl derivs.

2.2.2 – Organic – Petroleum derived substances – **Bitumene, modified asphalt**

- ID 229 – Residues (petroleum), vacuum
- ID 8155 – Asphalt
- ID 8156 – Asphalt, oxidized

2.2.3 – Organic – Petroleum derived substances – **Butylene oligomer**

- ID 4213-4214 – Butene, homopolymer (products derived from either/or But-1-ene/But-2-ene)
- ID 9193-9194 – Dodecene, branched

2.2.4 – Code not in use (*no content)*

2.2.5 – Organic – Petroleum derived substances – **Gas oils and distillate fuels**

- ID 234-237 – Gas oils (petroleum), light vacuum
- ID 415-420 – Fuels, diesel

2.2.6 – Organic – Petroleum derived substances – **Fuel oils and heavy residues**

- ID 230-233 – Gas oils (petroleum), heavy vacuum
- ID 250 – Residues (petroleum), hydrocracked
- ID 466-469 – Fuel oil, residual
- ID 506-507 – Residues (petroleum), light vacuum

2.2.7 – Organic – Petroleum derived substances – **Kerosine**

- ID 73-74 – Kerosine (petroleum)
- ID 314-318 – Solvent naphtha (petroleum), heavy arom.

2.2.8 – Organic – Petroleum derived substances – **Low boiling point naphtha (gasoline)**

- ID 214 –Naphtha (petroleum), full-range straight-run
- ID 476-480 – Hydrocarbons, C5-rich
- ID 634 – Naphtha (petroleum), catalytic reformed

2.2.9 – Organic – Petroleum derived substances – **Lubricating oils, greases, base oils, petrolatums** *(no content)*

2.2.10 – Organic – Petroleum derived substances – **Olefins**

- ID 4560 – Alkenes, C20-24 alpha
- ID 4983-4984 – Alkenes, C11-12
- ID 7973 – Alkenes, C20-24 α
- ID 7979-7980 – Alkenes, C8-10-branched, C9-rich

2.2.11 – Organic –Petroleum derives substances – **Other hydrocarbons (aliphatics, cyclic, aromatics)** *(no content)*

2.2.12 – Organic – Petroleum derives substances – **Paraffin and hydrocarbon waxes, slack waxes** *(no content)*

2.2.13 – Organic – Petroleum derived substances – **Petroleum gases**

- ID 473 – Hydrocarbons, C2-4, C3-rich
- ID 475 – Hydrocarbons, C4, ethylene-manuf.-by-product
- ID 632 – Gases (petroleum), light steam-cracked, butadiene
- ID 891-892 – Hydrocarbons, C4, steam-cracker distillate

2.2.14- Organic – Petroleum derived substances – **Resin Oils & alkenes**

- ID 495-496 – Distillates (petroleum), steam-cracked, C8-12

2.2.15 – Organic – Petroleum derived substances – **Foot oils**

- ID 224 – Distillates (petroleum), heavy paraffinic
- ID 297 – Foots oil (petroleum)

2.2.16 – Organic – Petroleum derived substances – **Others**

- ID 605 – Distillates (petroleum), heavy straight-run
- ID 4289 – Reaction products of 1-decene and 1-dodecene, hydrogenated
- ID 4438 – Hydrogenated dimerization products of 1-decene, 1-dodecene and 1-octene
- ID 7961 – Alkanes, C14-17, chloro
- ID 10300 – Naphthenic acids

► 2.3 Organic – Coal derived substances

- Type evaluation
- SIP

2.3.1 – Organic – Coal derived substances – **Anthracene oil**

- ID 821 – Distillates (coal tar), heavy oils

2.3.2 – Organic – Coal derived substances – **Tar acids**

- ID 721 – Distillates (coal tar), light oils

2.3.3 – Organic – Coal derived substances – **Coal tar, Coal tar bases, Pitches**

- ID 341 – Tar, coal, hight-temp.
- ID 343 – Pitch, coal tar, high-temp.

2.3.4 – Organic – Coal derived substances – **Light oils and naphthas**

- ID 334 – Light oil (coal), coke-oven

2.3.5 – Organic – Coal derived substances – **Naphthalene oils, Wash oils**

- ID 820 – Creosote oil, acenaphthene fraction
- ID 882 – Distillates (coal tar), naphthalene oil crystn. Mother liquor

2.3.6 – Organic – Coal derived substances – **Others**

- ID 67 – Montan wax

► 2.4 Other organic substances

2.4.1 – Organic – Other organic substances – **Oligomers**

- ID 4215 – Formaldehyde, oligomeric reaction products with 1-chloro-2,3-epoxypropane and phenol
- ID 4223 – 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine
- ID 5857 – 4,4'-Methylenediphenyl diisocyanate, oligomers
- ID 5904-5905 – 1,2-Dihydro-2,2,4-trimethylquinoline, oligomers

2.4.2 – Organic – Other organic substances – **Pigment dyes**

- ID 1528-1530 – Yellow pigment additive
- ID 8634 – Copper, [29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, brominated chlorinated
- ID 10705 – Polychloro copper phthalocyanine

2.4.3 – Organic – Other organic substances – **Residues**

- ID 414 – Benzene, (1-methylethyl)-, oxidized, polyphenyl residues
- ID 525-526 – Dodecene, hydroformylation products, high-boiling
- ID 599 – Ethanol, 2-amino-, reaction products with ammonia, by-products from
- ID 625-626 – Oxirane, reaction products with ammonia, distn. Residues
- ID 5126 – Alkenes, C11-14, hydroformylation products, distn. Residues, reaction products with maleic anhydride and sodium bisulfite, sodium salts

2.4.4 – Organic – Other organic substances – **Resins (synthetic) and polymers**

- ID 433 – Benzenamine, N-phenyl-, reaction products with 2,4,4-trimethylpentene
- ID 2458 – Condensation products of m-phenylenebis(methylamine) with condensation products of 4-methyl-m-phenylene diisocyanate with alcohols, C10-14 (even numbered)
- ID 4225 – 4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, esters with acrylic acid
- ID 4962 – 3-Isocyanatomethyl-3,5,5-trimethylcyclohexyl isocyanate homopolymer, isocyanurate type
- ID 5418 – (1-methyl-1,2-ethanediyl)bis[oxy(methyl-2,1-ethanediyl)] diacrylate
- ID 6986 – 2-Propenoic acid, 2-methyl-, C12-15 branched and linear alkyl esters
- ID 10522 – Oxydipropane-1,2-diyl bisacrylate
- ID 10617 – Phenol, dodecyl-, branched, sulfurized
- ID 10816 – Oligomeric reaction products of 4,4'-Methylenediphenyl diisocyanate and oxydipropanol
- ID 10852 – Propylidynetrimethanol, ethoxylated
- ID 10852 – SIP
- ID 10853 – Poly(oxy-1,2-ethanediyl),.alpha.-hydro-.omega.-[(1-oxo-2-propenyl)oxy]-, ether with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (3:1)
- ID 10854 – Propylidynetrimethanol, propoxylated

- ID 10854 – SIP

2.4.5 – Organic – Other organic substances – **Rosin Resin Derivates**

- ID 202 – Resin acids and Rosin acids, sodium salts
- ID 212 – Resin acids and Rosin acids, hydrogenated, esters with pentaerythritol
- ID 346 – Rosin, fumarated
- ID 860 – Rosin, reaction products with formaldehyde
- ID 924 – Rosin, fumarated, reaction products with glycerol and pentaerythritol
- ID 969 – Resin acids and Rosin acids, fumarated, esters with pentoerythritol

2.4.6 – Organic – Other organic substances – **Others**

- ID 384-385 – Naphthenic acids, reaction products with diethylenetriamine
- ID 581 – Phenol, dodecyl-, sulfurized, carbonates, calcium salts, overbased containing Distillates (petroleum), hydrotreated heavy paraffinic (UVCB)
- ID 4117-4121 – Reaction products of acetic anhydride and 1,5,10-trimethyl- 1,5,9-cyclodecatriene
- ID 4426-4431 – Inositol phosphates
- ID 4471 – Reclaimed >C5 aromatic compounds from tar oils manufacturing wastewater treatment
- ID 5899 – 1,2-Diaminotoluene, propoxylated
- ID 6308 – 2,2'2''-Nitrilotriethanol, propoxylated
- ID 6308 – SIP
- ID 6665 – 2-aminoethanol, monoester with baric acid
- ID 7997 – Glycerol, propoxylated
- ID 7997 – SIP
- ID 8731 – D-Glucitol, propoxylated
- ID 8731 – SIP
- ID 10615-10616 – Phenol, dodecyl-, branched
- ID 10906-10910 – S-(tricycle(5.2.10'2,6)deca-3-en-8(or9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate

➢ 3. Biological

► 3.1 Fermentation

3.1.1 – Biological – Fermentation – **Enzymes**

- ID 90 – Amylase, α-
- ID 93 – Cellulase
- ID 858 – Peptones, Casein

3.1.2 – Biological – Fermentation – **Others**

- ID 4524 – Sophorolipids: fermentation products of glucose and rapeseed-oil fatty acids methyl esters with yeast Candida Bombicola
- ID 4788 – Biomass residue ex B2, fermentation residues of molasses, yeast extract, sucrose and ammonia with bacillus subtilis

- ID 5021 – Vinasses, residue of fermentation containing biomass of bakers yeast (Saccharomyces cerevisiae)
- ID 5021 – Decision on compliance check Art. 41(3)
- ID 5027 – Vinasses, residue of fermentation
- ID 5085 – Vinasses, residue of fermentation, depotassified

► 3.2 Plants

3.2.1 – Biological – Plants – **Derivates**

- ID 65 – Castor oil, hydrogenated
- ID 72 – Cashew, nutshell liq.
- ID 78 – Soybean oil, epoxidized
- ID 399-400 – Castor oil, sulphated, sodium salt
- ID 965 – Oils, animal, sulphated, sodium salts
- ID 976-977 – Rape oil, oxidized
- ID 4404-4405 – Esterification product of castor oil and tetrahydromethyl-1,3-isobenzofuranedione

3.2.2 – Biological – Plants – **Extracts**

- ID 715 – Saccharomyces cerevisiae, ext.
- ID 718 – Cinnamomum zeylanicum, ext.
- ID 719 – Cocoa, ext.
- ID 729 – Lemon, ext.
- ID 13222 - Garlic, ext.
- ID 13478 – Lavandula angustifolia, Labiatae

3.2.3 – Biological – Plants – **Vegetable oils**

- ID 82 – Orange, sweet, ext.
- ID 700 – Myristica fragrans, ext.
- ID 13627 – Lavandula officinalis, Labiatae

3.2.4 – Biological – Plants – **Wood derived substances**

- ID 66 – Tall oil
- ID 87 – Rosin
- ID 344 – Tall oil, sodium salt
- ID 4973 – Crude Tall Oil (CTO)
- ID 4989 – Spent liquor from alkaline pulping and bleaching containing spent inorganic process chemicals and dissolved organic substances originating from the cellulosic raw material

3.2.5 – Biological – Plants – **Others**

- ID 350 – Corn, steep liquor
- ID 565-566 – Charcoal, coconut shell

- **4. Others**

4.1.1 – Others – **Mix organic-inorganic**

- ID 157 – Orthoboric acid, compound with 2-aminoethanol
- ID 157- SIP
- ID 373 – Orthoboric acid, compound with 2,2'-iminodiethanol
- ID 957 – Boric acid (H3BO3), reaction products with ethanolamine
- ID 5020 – Calcium dihydroxide precipitated with carbon dioxide during sugar juice purification
- ID 10817 – Propane-1,2-diol polymer with 1-isocyanato-4-[(4-isocyanatophenyl)methyl]benzene and 1-isocyanato-2-[(4-isocyanatophenyl)methyl]benzene
- ISO 134/39 – Characterization

4.2.1 – Others – **Salts**

- ID 455 – Phosphorodithioic acid, mixed 0-0bis(iso-Bu and pentyl) esters, zinc salts
- ID 716 – Phosphorodithioic acid, mixed 0-0bis(1,3-dimethylbutyl and iso-Pr) esters, zinc salts
- ID 787 – phosphorodithioic acid, mixed 0,0-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts
- ID 9044 – Dioxobis(stearato)trilead
- ID 9044 – Lead REACH Consortium
- ID 11683 – Zinc bis[0,0-bis(2-ethylhexyl)] bis(dithiophosphate)

4.3.1 – Others – **Other**

- ID 4379 – Reaction mass of ammonium difluoro {[(4S,5R)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetate, ammonium difluoro{[(4R,5S)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetate, ammonium difluoro{[(4S,5S)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetate and ammonium difluoro {[(4R,5R)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetate
- ID 4380 - Reaction mass of difluoro{[(4S,5R)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetic acid, difluoro{[(4R,5S)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetic acid, difluoro{[(4S,5S)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetic acid and difluoro{[(4R,5R)-2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl]oxy}acetic acid
- ID 4891 – Reaction mass of cis4-(3-methylbutyl)cyclohexanol and trans 4-(3-methylbutyl)cyclohexanol