Carcinogenic and Mutagenic Substances and Substances Toxic for Repreparationion

1. It shall be prohibited to use the carcinogenic, mutagenic and chemical substances toxic for repreparationion referred to in Paragraphs 29, 30 and 31 of Annex 1 of these Regulations as substances or components of preparations in a concentration, which is equal to or greater than 0.1% in preparations, which are intended for sale in the retail trade.
[14 October 2003]

2. The packaging of such substances and preparations shall be labelled in accordance with the regulatory enactments, which regulate the procedures for the classification, labelling and packaging of chemical substances and shall have a readable and legible inscription: “Paredzēts tikai profesionāliem lietotājiem" [Restricted to professional users]. Uzmanību! [Warning] Izvairīties no iedarbibas – pirms lietošanas iepazīties are lietošanas instrukciju! [Avoid exposure - Obtain special instructions before use].
[14 October 2003]

3. Category 1 carcinogenic substances (Paragraph 29 of Annex 1):

Substances	Index No	EC No	CAS No	Notes
Chromium trioxide	024-001-00-0	215-607-8	1333-82-0	
Zinc chromates including zinc potassium chromate	024-007-00-3			
Nickel monoxide	028-003-00-2	215-215-7	1313-99-1	
Nickel dioxide	028-004-00-8	234-823-3	12035-36-8	
Dinickel trioxide	028-005-00-3	215-217-8	1314-06-3	
Nickel sulphide	028-006-00-9	240-841-2	16812-54-7	
Nickel subsulphide	028-007-00-4	234-829-6	12035-72-2	
Diarsenic trioxide, arsenic trioxide	033-003-00-0	215-481-4	1327-53-3	
Arsenic pentoxide, arsenic oxide	033-004-00-6	215-116-9	1303-28-2	
Arsenic acid and its salts	033-005-00-1			
Lead hydrogen arsenate	082-011-00-0	232-064-2	7784-40-9	
Butane [containing ≥ 0,1 % Butadiene (203-450-8)] [1]	601-004-01-8	203-448-7 [1]	106-97-8 [1]	C, S
Isobutane [containing ≥ 0,1 % Butadiene (203-450-8)] [2]		200-857-2 [2]	75-28-5 [2]	
1,3-Butadiene; buta-1,3-diene	601-013-00-X	203-450-8	106-99-0	D
Benzene	601-020-00-8	200-753-7	71-43-2	
Vinyl chloride; chloroethylene	602-023-00-7	200-831-0	75-01-4	
Bis (chloromethyl) ether	603-046-00-5	208-832-8	542-88-1	

Chloromethyl methyl ether; chlorodimethylether	603-075-00-3	203-480-1	107-30-2	
2-naphthylamine; beta-naphthylamine	612-022-00-3	202-080-4	91-59-8	
Benzidine; 4,4'-diaminobiphenyl; biphenyl-4,4'-ylenediamine	612-042-00-2	202-199-1	92-87-5	
Salts of benzidine	612-070-00-5			
Salts of 2-naphthylamine	612-071-00-0			
Biphenyl-4-ylamine; xenylamine; 4-aminobiphenyl	612-072-00-6	202-177-1	92-67-1	
Salts of biphenyl-4-ylamine; salts of xenylamine; salts of 4-aminobiphenyl;	612-073-00-1			
Tar, coal; Coal tar (The by-preparation from the destructive distillation of coal. Almost black thick mass. A complex combination of aromatic hydrocarbons, phenolic compounds, nitrogen bases and thiophene.)	648-081-00-7	232-361-7	8007-45-2	
Tar, coal, high temperature; Coal tar (The condensation preparation obtained by cooling to approximately room temperature the gas evolved in the destructive distillation of coal at high temperature (greater than 700ºC (1292ºF)). A black, viscous liquid, denser than water. Composed primarily of a complex mixture of condensed aromatic hydrocarbons. May also contain small amounts of phenolic compounds and aromatic nitrogen bases.)	648-082-00-2	266-024-0	65996-89-6	
Tar, coal, low temperature; Coal tar (The condensation preparation obtained by cooling to approximately room temperature the gas evolved in the destructive distillation of coal at low temperature (lower than 700ºC (1292ºF)). A black, viscous liquid, denser than water. Composed primarily of condensed aromatic hydrocarbons, phenolic compounds, aromatic nitrogen bases and their alkyl derivatives.)	648-083-00-8	266-025-6	65996-90-9	
Tar brown-coal (An oil obtained by distilling brown-coal tar. Composed primarily of aliphatic, naphthenic and one- to three-ring aromatic hydrocarbons, their alkyl derivatives, heteroaromatic compounds and one- and two-ring phenols with a boiling point in the range of approximately 150ºC – 360ºC (302ºF – 680ºF).)	648-145-00-4	309-885-0	101316-83-0	

Tar, brown-coal, low temperature (A tar obtained in a brown-coal gasification and carbonisation process at low temperatures, is composed primarily of aliphatic, naphthenic cyclic aromatic hydrocarbons, heteroaromatic hydrocarbons and cyclic phenols.)	648-146-00-X	309-886-6	101316-84-1	
Distillates (petroleum), light paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of less than 100 SUS at 100°F (19 cSt at 40°C). It contains a relatively large proportion of saturated aliphatic hydrocarbons characteristic to this distillation range of crude oil.)	649-050-00-0	265-051-5	64741-50-0	
Distillates (petroleum); heavy paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains a relatively large proportion of saturated aliphatic hydrocarbons.)	649-051-00-6	265-052-0	64741-51-1	
Distillates (petroleum), light naphthenic; Unrefined or partly refined base oil (A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively small amount of normal paraffins.)	649-052-00-1	265-053-6	64741-52-2	
Distillates (petroleum), heavy naphthenic; Unrefined or partly refined base oil	649-053-00-7	265-054-1	64741-53-3	

(A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively few normal paraffins.)				
Distillates (petroleum), acid-treated heavy naphthenic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained as a raffinate from a sulphuric acid treating process. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively few normal paraffins.)	649-054-00-2	265-117-3	64742-18-3	
Distillates (petroleum), acid-treated light naphthenic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained as a raffinate from a sulphuric acid treating process. It consists primarily of hydrocarbons with the number of carbon atoms in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively few normal paraffins.)	649-055-00-8	265-118-9	64742-19-4	
Distillates (petroleum), acid-treated heavy paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained as a raffinate from a sulphuric acid treating process. It consists primarily of hydrocarbons with the number of carbon atoms predominantly in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C).)	649-056-00-3	265-119-4	64742-20-7	
Distillates (petroleum), acid-treated light paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons	649-057-00-9	265-121-5	64742-21-8	

obtained as a raffinate from a sulphuric acid treating process. It consists primarily of hydrocarbons with the number of carbon atoms predominantly in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of less than 100 SUS at 100°F (19 cSt at 40°C).)				
Distillates (petroleum), chemically neutralised heavy paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained from a treating process to remove acidic materials. It consists primarily of hydrocarbons with the number of carbon atoms predominantly in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively many aliphatic hydrocarbons.)	649-058-00-4	265-127-8	64742-27-4	
Distillates (petroleum), chemically neutralised light paraffinic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained from a treating process to remove acidic materials. It consists primarily of hydrocarbons with the number of carbon atoms predominantly in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C).)	649-059-00-X	265-128-3	64742-28-5	
Distillates (petroleum), chemically neutralised heavy naphthenic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained from a treating process to remove acidic materials. It consists of hydrocarbons with the number of carbon atoms predominantly in the range from C_{20} to C_{50} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively few normal paraffins.)	649-060-00-5	265-135-1	64742-34-3	
Distillates (petroleum), chemically neutralised light naphthenic; Unrefined or partly refined base oil (A complex combination of hydrocarbons obtained from a treating process to remove acidic materials. It consists of hydrocarbons	649-061-00-0	265-136-7	64742-35-4	

with the number of carbon atoms predominantly in the range from C_{15} to C_{30} and produces a finished oil with a viscosity of not less than 100 SUS at 100°F (19 cSt at 40°C). It contains relatively few normal paraffins.)				
erionite	650-012-00-0		12510-42-8	
asbestos	650-013-00-6		132207-33-1 132207-32-0 12172-73-5 77536-66-4 77536-68-6 77536-67-5	

[14 October 2003; 29 June 2004]

4. Category 2 carcinogenic substances (Paragraph 29 of Annex 1):

Substances	Index No	EC No	CAS No	Notes
beryllium	004-001-00-7	231-150-7	7440-41-7	
beryllium compounds except for aluminium beryllium silicates	004-002-00-2			
beryllium oxide	004-003-00-8	215-133-1	1304-56-9	E
sulfallate (ISO); 2-chlorallyl diethyldithiocarbamate	006-038-00-4	202-388-9	95-06-7	
dimethylcarbamoyl chloride	006-041-00-0	201-208-6	79-44-7	
diazomethane	006-068-00-8	206-382-7	334-88-3	
hydrazine	007-008-00-3	206-114-9	302-01-2	
N,N-dimethylhydrazine	007-012-00-5	200-316-0	57-14-7	
1,2-dimethylhydrazine	007-013-00-0		540-73-8	
salts of hydrazine	007-014-00-6			
hydrazobenzene; 1,2-diphenylhydrazine	007-021-00-4	204-563-5	122-66-7	
hydrazine bis(3-carboxy-4-hydroxybenzensulfonate)	007-022-00-X	405-030-1		
hexamethylphosphoric triamide; hexamethylphosphoramide	015-106-00-2	211-653-8	680-31-9	
dimethyl sulphate	016-023-00-4	201-058-1	77-78-1	
diethyl sulphate	016-027-00-6	200-589-6	64-67-5	
1,3-propanesultone	016-032-00-3	214-317-9	1120-71-4	
dimethylsulfamoylchloride	016-033-00-9	236-412-4	13360-57-1	
potassium dichromate	024-002-00-6	321-906-6	7778-50-9	
ammonium dichromate	024-003-00-1	232-143-1	7789-09-5	
sodium dichromate	024-004-00-7	234-190-3	10588-01-9	
sodium dichromate, dihydrate	024-004-01-4	234-190-3	7789-12-0	
chromyl dichloride; chromic oxychloride	024-005-00-2	239-056-8	14977-61-8	
potassium chromate	024-006-00-8	232-140-6	7789-00-6	

calcium chromate	024-008-00-9	237-366-8	13765-19-0	
strontium chromate	024-009-00-4	232-142-6	7789-06-2	
chromium III chromate; chromic chromate	024-010-00-X	246-356-2	24613-89-6	
chromium (VI) compounds, except for barium chromate and substances specified in Annex 1	024-017-00-8			
sodium chromate	024-018-00-3	231-889-5	7775-11-3	E
cobalt dichloride	027-004-00-5	231-589-4	7646-79-9	
cobalt sulphate	027-005-00-0	233-334-2	10124-43-3	
potassium bromate	035-003-00-6	231-829-8	7758-01-2	
cadmium oxide	048-002-00-0	215-146-2	1306-19-0	
cadmium fluoride	048-006-00-2	232-222-0	7790-79-6	
cadmium chloride	048-008-00-3	233-296-7	10108-64-2	
cadmium sulphate	048-009-00-9	233-331-6	10124-36-4	
benzo[a]pyrene; benzo[d,e,f]chrysene	601-032-00-3	200-028-5	50-32-8	
benzo[a]anthracene	601-033-00-9	200-280-6	56-55-3	
benzo[b]fluoranthene; benzo[e]acephenanthrylene	601-034-00-4	205-911-9	205-99-2	
benzo[j]fluoranthene	601-035-00-X	205-910-3	205-82-3	
benzo[k]fluoranthene	601-036-00-5	205-916-6	207-08-9	
dibenz[a,h]anthracene	601-041-00-2	200-181-8	53-70-3	
chrysene	601-048-00-0	205-923-4	218-01-9	
benzo[e]pyrene	601-049-00-6	205-892-7	192-97-2	
1,2-dibromoethane; ethylene dibromide	602-010-00-6	203-444-5	106-93-4	
1,2-dichloroethane; ethylene dichloride	602-012-00-7	203-458-1	107-06-2	
1,2-dibromo-3-chloropropane	602-021-00-6	202-479-3	96-12-8	
bromoethylene	602-024-00-2	209-800-6	593-60-2	
trichloroethylene; trichloroethene	602-027-00-9	201-167-4	79-01-6	
α-chlorotoluene; benzyl chloride	602-037-00-3	202-853-6	100-44-7	E
α,α,α-trichlorotoluene; benzotrichloride	602-038-00-9	202-634-5	98-07-7	
1,3-dichloro-2-propanol	602-064-00-0	202-491-9	96-23-1	
hexachlorobenzene	602-065-00-6	204-273-9	118-74-1	
1,4-dichlorobut-2-ene	602-073-00-X	212-121-8	764-41-0	
2,3-dibromopropan-1-ol; 2,3-dibromo-1-propanol	602-088-00-1	202-480-9	96-13-9	E
ethylene oxide; oxirane	603-023-00-X	200-849-9	75-21-8	
1-chloro-2,3-epoxypropane; epichlorhydrin	603-026-00-6	203-439-8	106-89-8	
propylene oxide; 1,2-epoxypropane; methyloxirane	603-055-00-4	200-879-2	75-56-9	E
2,2'-Bioxirane; 1,2:3,4-diepoxybutane	603-060-00-1	215-979-1	1464-53-5	
2,3-Epoxypropan-1-ol; glycidol	603-063-00-8	209-128-3	556-52-5	
Phenyl glycidyl ether; 2,3-epoxypropyl phenyl ether; 1,2-epoxy-3-phenoxypropane	603-067-00-X	204-557-2	122-60-1	E
styrene oxide; (epoxyethyl)benzene;	603-084-00-2	202-476-7	96-09-3	

phenyloxirane				
Furan	603-105-00-5	203-727-3	110-00-9	E
R-2,3-epoxy-1-propanol	603-143-00-2	404-660-4	57044-25-4	E
(R)-1-chloro-2,3-epoxypropane	603-166-00-8	424-280-2	51594-55-9	
4-amino-3-fluorophenol	604-028-00-X	402-230-0	399-95-1	
5-allyl-1,3-benzodioxole; safrole	605-020-00-9	202-345-4	94-59-7	
3-propanolide; 1,3-propiolactone	606-031-00-1	200-340-1	57-57-8	
urethane(INN); ethylcarbamate	607-149-00-6	200-123-1	51-79-6	
methyl acrylamidomethoxyacetate (containing ≥ 0,1 % acrylamide)	607-190-00-X	401-890-7	77402-03-0	
methyl acrylamidoglycolate (containing ≥ 0,1 % acrylamide)	607-210-00-7	403-230-3	77402-05-2	
acrylonitrile	608-003-00-4	203-466-5	107-13-1	
2-nitropropane	609-002-00-1	201-209-1	79-46-9	
2,4-Dinitrotoluene [1]; dinitrotoluene [2]; dinitrotoluene, technical grade [2]	609-007-00-9	204-450-0 [1] 246-836-1 [2]	121-14-2 [1] 25321-14-6 [2]	
5-nitroacenaphthene	609-037-00-2	210-025-0	602-87-9	
2-nitronaphthalene	609-038-00-8	209-474-5	581-89-5	
4-nitrodiphenyl	609-039-00-3	202-204-7	92-93-3	
nitrofen (ISO); 2,4-dichlorophenyl-4-nitrophenyl ether	609-040-00-9	217-406-0	1836-75-5	
2-nitroanisole	609-047-00-7	202-052-1	91-23-6	
2,6-Dinitrotoluene	609-049-00-8	210-106-0	606-20-2	
2,3-dinitrotoluene	609-050-00-3	210-013-5	602-01-7	E
3,4-dinitrotoluene	609-051-00-9	210-222-1	610-39-9	E
3,5-dinitrotoluene	609-052-00-4	210-566-2	618-85-9	E
Hydrazine-tri-nitromethane	609-053-00-X	414-850-9	—	
2,5-dinitrotoluene	609-055-00-0	210-581-4	619-15-8	E
Azobenzene	611-001-00-6	203-102-5	103-33-3	
methyl-ONN-azoxymethyl acetate; methyl azoxy methyl acetate	611-004-00-2	209-765-7	529-62-1	
disodium {5-[(4'-((2,6-hydroxy-3-((2-hydroxy-5-sulphophenyl)azo)phenyl)azo)(1,1'-biphenyl)-4-yl)azo]salicylato(4-)}cuprate(2-); CI Direct Brown 95	611-005-00-8	240-221-1	16071-86-6	
4-o-tolylazo-o-toluidine; 4-amino-2',3-dimethylazobenzene; fast garnet GBC base; AAT; o-aminoazotoluene	611-006-00-3	202-591-2	97-56-3	
4-aminoazobenzene	611-008-00-4	200-453-6	60-09-3	
benzidine based azo dyes; 4,4'-diarylazobiphenyldyes, except for those	611-024-00-1			

specified in Annex 1				
Disodium4-amino 3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphtalene-2,7-disulphonate; C.I. Direct Black 38	611-025-00-7	217-710-3	1937-7	
Tetrasodium3,3'-[[1,1'-biphenyl]-4,4'-dylbis(azo)]bis[5-amino-4-hydroxynaphthalene-2,7-disulphonate];	611-026-00-2	220-012-1	2602-46-2	
Disodium3,3'-[[1,1'-bifenyl]-4,4'dylbis(azo)]bis[4-aminonaphthalene-1-sulphonate);	611-027-00-8	209-358-4	573-58-0	
o-Dianisidine based azo dyes; 4,4'-diarylazo-3,3'-dimethoxybiphenyl dyes with the exception of those, which are referred to in the dangerous chemical substance list approved by the Minister for the Environment	611-029-00-9	—	—	
o-Tolidine based dyes; 4,4'-diarylazo-3,3'-dimethylbiphenyl dyes, with the exception of those, which are referred to in the dangerous chemical substance list approved by the Minister for the Environment	611-030-00-4	—	—	
1,4,5,8-Tetraaminoanthraquinone; C.I. Disperse Blue 1	611-032-00-5	219-603-7	2475-45-8	
6-hydroxy-1-(3-isopropoxypropyl)-4-methyl-2-oxo-5-[4-(phenylazo)phenylazo]-1,2-dihydro-3-pyridinecarbonitrile	611-057-00-1	400-340-3	85136-74-9	
(6-(4-hydroxy-3-(2-methoxyphenylazo)-2-sulfonato-7-naphthylamino)-1,3,5-triazin-2,4-diyl)bis[(amino-1-methylethyl)-ammonium] formate	611-058-00-7	402-060-7	108225-03-2	
Trisodium-[4'-(8-acetylamino-3,6-disulfonato-2-naphthylazo)-4''-(6-benzoylamino-3-sulfonato-2-naphthylazo)biphenyl-1,3',3'',1'''-tetraolato-O, O', O'',O''']copper(II)	611-063-00-4	413-590-3	—	
Phenylhydrazine [1] Phenylhydrazinium chloride [2] Phenylhydrazine hydrochloride [3] Phenylhydrazinium sulphate (2:1) [4]	612-023-00-9	202-873-5 [1] 200-444-7 [2] 248-259-0 [3] 257-622-2 [4]	100-63-0 [1] 59-88-1 [2] 27140-08-5 [3] 52033-74-6 [4]	
toluene-2,2-diammonium sulphate	612-126-00-9	365-697-8	65321-67-7	

2-methoxyaniline; o-anisidine,	612-035-00-4	201-963-1(o)	90-04-0	
3,3'-dimethoxybenzidine; o-dianisidine	612-036-00-X	204-355-4	119-90-4	
salts of 3,3'-dimethoxybenzidine; salts of o-dianisidine	612-037-00-5			
3,3'-dimethylbenzidine; o-tolidine	612-041-00-7	204-358-0	119-93-7	
4,4'-diaminodiphenylmethane; 4,4'-methylenedianiline	612-051-00-1	202-974-4	101-77-9	
3,3'-dichlorobenzidine; 3,3'-dichlorobiphenyl-4,4'-ylenediamine	612-068-00-4	202-109-0	91-94-1	
salts of 3,3'-dichlorobenzidine; salts of 3,3'-dichlorobiphenyl-4,4'-ylenediamine	612-069-00-X			
N-nitrosodimethylamine; dimethylnitrosamine	612-077-00-3	200-549-8	62-75-9	
2,2'-dichloro-4,4'-methylenedianiline; 4,4'-methylene bis(2-chloroaniline)	612-078-00-9	202-918-9	101-14-4	
salts of 2,2'-dichloro-4,4'-methylenedianiline; salts of 4,4'-methylenebis(2-chloroaniline)	612-079-00-4			
salts of 3,3'-dimethylbenzidine; salts of o-tolidine	612-081-00-5			
1-methyl-3-nitro-1-nitrosoguanidine	612-083-00-6	200-730-1	70-25-7	
4,4'-methylenedi-o-toluidine	612-085-00-7	212-658-8	838-88-0	
2,2'-(nitrosoimino)bisethanol	612-090-00-4	214-237-4	1116-54-7	
o-toluidine	612-091-00-X	202-429-0	95-53-4	
nitrosodipropylamine	612-098-00-8	210-698-0	621-64-7	
4-methyl-m-phenylenediamine	612-099-00-3	202-453-1	95-80-7	
4- chloraniline	612-137-00-9	203-401-0	106-47-8	
ethyleneimine; aziridine	613-001-00-1	205-793-9	151-56-4	
2-methylaziridine; propyleneimine	613-033-00-6	200-878-7	75-55-8	
captafol (ISO); 1,2,3,6-tetrahydro-N-(1,1,2,2-tetrachloroethylthio) phthalimide	613-046-00-7	219-363-3	2425-06-1	
carbadox (INN); methyl 3-(quinoxalin-2-ylmethylene)carbazate 1,4-dioxide; 2-(methoxycarbonylhydrazonomethyl)quinoxaline 1,4-dioxide	613-050-00-9	229-879-0	6804-07-5	
acrylamide	616-003-00-0	201-173-7	79-06-1	
thioacetamide	616-026-00-6	200-541-4	62-55-5	

A mixture of: N-[3-hydroxy-2-(2-methylacryloylamino-methoxy)propoxymethyl]-2-methylacrylamide; N-[2,3-Bis-(2-methylacryloylamino-methoxy)-	616-057-00-5	412-790-8	—	

propoxymethyl]-2-methylacrylamide; methacrylamide; 2-methyl-N-(2-methylacryloylaminomethoxymethyl)-acrylamide; N-2,3-dihydroxypropoxymethyl)-2-methylacrylamide				
Distillates (coal tar), benzole fraction; Light oil (A complex combination of hydrocarbons obtained by the distillation of coal tar. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_4 toC_{10} and distilling in the approximate range of 80ºC – 160ºC (175ºF - 320ºF).)	648-001-00-0	283-482-7	84650-02-2	
Tar oils, brown-coal; Light oil (The distillate from lignite tar with a boiling point in the range of approximately 80ºC – 250ºC (176ºF – 482ºF). Composed primarily of aliphatic and aromatic hydrocarbons and monobasic phenols.)	648-002-00-6	302-674-4	94114-40-6	J
Benzole forerunnings (coal); Light oil redistillate with low boiling point (Light oil distillate produced in a coal coking process and distilling at temperatures lower than approximately 100ºC (212ºF). Composed primarily of aliphatic hydrocarbons with the number of carbon atoms from C_4 to C_6.)	648-003-00-1	266-023-5	65996-88-5	J
Distillates (coal tar), benzole fraction, enriched with benzole, toluene and xylene; Light oil redistillate with a low boiling point (A residue after the distillation of crude benzole to remove benzole fronts. Composed primarily of benzole, toluene and xylenes with a boiling point in the range of approximately 75ºC – 200ºC (167ºF – 392ºF).)	648-004-00-7	309-984-9	101896-26-8	J
Aromatic hydrocarbons, C_{6-10}, C_8-rich; Light oil redistillate with a low boiling point	648-005-00-2	292-697-5	90989-41-6	J
Solvent naphtha (coal), Light oil redistillate with a low boiling point	648-006-00-8	287-498-5	85536-17-0	J
Solvent naphtha (coal), xylene-styrene cut; Light oil redistillate with an intermediate boiling point	648-007-00-3	287-502-5	85536-20-5	J
Solvent naphtha (coal), coumarone-styrene containing; Light oil redistillate with an intermediate boiling point	648-008-00-9	287-500-4	85536-19-2	J
Naphtha (coal), distillation residues; Light oil redistillate with a high boiling point (The residue remaining from the distillation of recovered naphtha. Composed primarily of naphthalene, as well as condensation	648-009-00-4	292-636-2	90641-12-6	J

preparations of indene and styrene.)				
Aromatic hydrocarbons, C_8; Light oil redistillate with a high boiling point	648-010-00-X	292-694-9	90989-38-1	J
Aromatic hydrocarbons, C_{8-9}, hydrocarbon resin polymerisation by-preparation; Light oil redistillate with a high boiling point (A complex combination of hydrocarbons obtained from the evaporation of solvent under vacuum from polymerised hydrocarbon resin. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_8 toC_9 and a boiling point in the range of approximately 120ºC - 215ºC (248ºF - 419ºF).)	648-012-00-0	295-281-1	91995-20-9	J
Aromatic hydrocarbons, C_{9-12}, benzene distillates; Light oil redistillate with a high boiling point	648-013-00-6	295-551-9	92062-36-7	J
Extract residues (coal), benzole fraction, alkali, acid-extracted; Light oil extract residues with a low boiling point (The redistillate from the distillation of bituminous coal high temperature tar (boiling point in the approximate range of 90ºC – 160ºC (194ºF – 320ºF), freed of tar bases and tar acids. It consists predominantly of benzene, toluene and xylenes.)	648-014-00-1	295-323-9	91995-61-8	J
Extract residues (coal tar), benzole fraction, alkali, acid-extracted; Light oil extract residues with a low boiling point (A complex combination of hydrocarbons obtained by the redistillation of the distillate of high temperature coal tar (freed of tar bases and tar acids). It consists predominantly of substituted and unsubstituted mononuclear aromatic hydrocarbons with a boiling point in the range of 85ºC – 195ºC (185ºF – 383ºF).)	648-015-00-7	309-868-8	101316-63-6	J
Extract residues (coal), acid benzole fraction Light oil extract residues with a low boiling point (An acid sludge by-preparation obtained by sulphuric acid refining of crude high temperature coal. Composed primarily of sulphuric acid and organic compounds.)	648-016-00-2	298-725-2	93821-38-6	J
Extract residues (coal), light oil alkaline fraction, distillation overheads; Light oil extract residues with a low boiling point (The first fraction from the distillation of aromatic hydrocarbons, coumarone, naphthalene	648-017-00-8	292-625-2	90641-02-4	J

and indene rich prefactionator bottoms or washed carbolic oil (boiling point substantially below 145ºC (293ºF). Composed primarily of C_7 and C_8 aliphatic and aromatic hydrocarbons.)				
Extract residues (coal), light oil, alkali, acid-extracted, indene fraction; Light oil extract residues with an intermediate boiling point	648-018-00-3	309-867-2	101316-62-5	J
Extract residues (coal), light oil alkali, indene naphtha fraction; Light oil extract residues with a high boiling point (The distillate from aromatic hydrocarbons, coumarone, naphthalene and indene rich prefractionator bottoms or washed carbolic oils, with an approximate boiling point in the range of 155ºC – 180ºC (311ºF – 356ºF). Composed primarily of indene, indan and trimethylbenzenes.)	648-019-00-9	292-626-8	90641-03-5	J
Solvent naphtha (coal), Light oil extract residues with a high boiling point (The distillate from high temperature coal tar, coke oven light oil, or coal tar oil alkaline extract residue with a boiling point in the range of approximately 130ºC – 210ºC (266ºF – 410ºF). Composed primarily of indene and other polycyclic ring systems containing a single aromatic ring. May contain phenols and aromatic nitrogen bases.)	648-020-00-4	266-013-0	65996-79-4	J
Distillates (coal tar), light oils, neutral fraction; Light oil extract residues with a high boiling point (A distillate from the fractional distillation of high temperature coal tar. Composed primarily of alkyl-substituted one ring aromatic hydrocarbons with a boiling point in the range of approximately 135ºC – 210ºC (275ºF – 410ºF). May also contain unsaturated hydrocarbons such as indene and coumarone.)	648-021-00-X	309-971-8	101794-90-5	J
Distillates (coal tar), light oils, acid-extracted; Light oil extract residues with a high boiling point (This oil is a complex mixture of aromatic hydrocarbons, primarily indene, naphthalene, coumarone, phenol and o-, m- and p-cresol with a boiling point in the range of 140ºC – 215ºC (284ºF – 419ºF).)	648-022-00-5	292-609-5	90640-87-2	J
Distillates (coal tar), light oils; Carbolic oil (A complex combination of hydrocarbons obtained by distillation of coal tar. It consists of	648-023-00-0	283-483-2	84650-03-3	J

aromatic and other hydrocarbons, phenolic compounds and aromatic nitrogen compounds and distils at the approximate range of 150ºC – 210ºC (302ºF – 410ºF).)				
Tar oils, coal; Carbolic oil (The distillate from high temperature coal tar that distils at the approximate range of 130ºC – 250ºC (266ºF – 410ºF). Composed primarily of naphthalene, alkylnaphthalenes, phenolic compounds, and aromatic nitrogen bases.)	648-024-00-6	266-016-7	65996-82-9	J
Extract residues (coal), light oil extracted by alkali, acids; Carbolic oil extract residue (The oil resulting from the acid washing of alkali-washed carbolic oil to remove the minor amounts of basic compounds (tar bases). Composed primarily of indene, indan and alkylbenzenes.)	648-026-00-7	292-624-7	90641-01-3	J
Extract residues (coal), tar oil, alkali; Carbolic oil extract residue (The residue obtained from coal tar oil by an alkaline wash (for example, aqueous sodium hydroxide) after the removal of crude coal tar acids. Composed primarily of naphthalenes and aromatic nitrogen bases.)	648-027-00-2	266-021-4	65996-87-4	J
Extract oils (coal), light oil; Acid extract (The aqueous extract produced by an acidic wash of alkali-washed carbolic oil. Composed primarily of acid salts of various aromatic nitrogen bases including pyridine, quinoline and their alkyl derivatives.)	648-028-00-8	292-622-6	90640-99-6	J
Pyridine, alkyl derivatives; Crude tar bases (The complex combination of polyalkylated pyridines derived from coal tar distillation or as high-boiling distillates approximately above 150ºC (302ºF), from the reaction of ammonia with acetaldehyde, formaldehyde or paraformaldehyde.)	648-029-00-3	269-929-9	68391-11-7	J
Tar bases, coal, picoline fraction; Distillate bases (Pyridine bases with a boiling point in the range of approximately 125ºC – 160ºC (257ºF - 320ºF) obtained by distillation of neutralised acid extract of the base-containing tar fraction obtained by the distillation of bituminous coal tars. Composed primarily of lutidines and picolines.)	648-030-00-9	295-548-2	92062-33-4	J
Tar bases, coal, lutidine fraction; Distillate bases	648-031-00-4	293-766-2	91082-52-9	J
Extract oils (coal), tar base, collidine fraction; Distillate bases	648-032-00-X	273-077-3	68937-63-3	J

(The extract produced by the acid extraction of bases from crude coal tar aromatic oils, with subsequent neutralisation, and distillation of the bases. Composed primarily of collidines, aniline, toluidines, lutidines, xylidines.)				
Tar bases, coal, collidine fraction; Distillate bases (The distillation fraction with a boiling point in the range of approximately 181ºC – 186ºC (356ºF – 367ºF) from the crude bases obtained from the neutralised, acid extracted base-containing tar fractions obtained by the distillation of bituminous coal tar. It contains primarily aniline and collidines.)	648-033-00-5	295-543-5	92062-28-7	J
Tar bases, coal, aniline fraction; Distillate bases (The distillation fraction with a boiling point in the range of approximately 180ºC – 200ºC (356ºF – 392ºF) from the crude bases obtained by dephenolating and debasing the oil from the distillation of coal tar. It contains primarily aniline, collidines, lutidines and toluidines.)	648-034-00-0	295-541-4	92062-27-6	J
Tar bases, coal, toluidine fraction; Distillate bases	648-035-00-6	293-767-8	91082-53-0	J
Distillates (petroleum), alkene-alkyene pyrolysis oil, mixed with high temperature coal tar, indene fraction; Redistillates (A complex combination of hydrocarbons obtained as a redistillate from the fractional distillation of bituminous coal high temperature tar and residual oils that are obtained by the pyrolytic preparationion of alkenes and alkynes from petroleum preparations or natural gas. It consists predominantly of indene and its boiling point is in a range of approximately 160ºC – 190ºC (320ºF – 374ºF).)	648-036-00-1	295-292-1	91995-31-2	J
Distillates (coal), coal tar-residual pyrolysis oils, naphthalene oils; Redistillates (The redistillate obtained from the fractional distillation of bituminous coal high temperature tar and pyrolysis residual oils with a boiling point in the range of approximately 190ºC – 270ºC (374ºF – 518ºF). Composed primarily of substituted dinuclear aromatic compounds.)	648-037-00-7	295-295-8	91995-35-6	J
Extract oils (coal), coal tar-residual pyrolysis oils, naphthalene oils; redistillate; Redistillates (The redistillate from the fractional distillation of dephenolated and debased methylnaphthalene oil obtained from bituminous coal high temperature	648-038-00-2	295-329-1	91995-66-3	J

tar and pyrolysis residual oils with a boiling point in the approximate range of 220ºC – 230ºC (428ºF – 446ºF). It consists predominantly of unsubstituted and substituted dinuclear aromatic hydrocarbons.)				
Extract oils (coal), coal tar-residual pyrolysis oils, naphthalene oils; Redistillates (A neutral oil obtained by dephenolating and debasing the oil obtained from the distillation of high temperature tar and pyrolysis residual oils with a boiling point in the range of 225ºC – 255ºC (437ºF – 491ºF). Composed primarily of substituted dinuclear aromatic hydrocarbons.)	648-039-00-8	310-170-0	122070-79-5	J
Extract oils (coal), coal tar-residual pyrolysis oils, naphthalene oils; distillation residues; Redistillates (Residue from the distillation of dephenolated and debased methylnaphthalene oil (obtained from bituminous coal tar and pyrolysis residual oils) with a boiling point in the range of 240ºC – 260ºC (464ºF – 500ºF). Composed primarily of substituted dinuclear aromatic and heterocyclic hydrocarbons.)	648-040-00-3	310-171-6	122070-80-8	J
Absorption oils, bicyclo aromatic and heterocyclic hydrocarbon fraction; Wash oil redistillate (A complex combination of hydrocarbons obtained as a redistillate from the distillation of wash oil. It consists predominantly of 2-ringed aromatic and heterocyclic hydrocarbons with a boiling point in the range of approximately 260ºC – 290ºC (500ºF – 554ºF).)	648-041-00-9	309-851-5	101316-45-4	M
Distillates (coal tar), fluorene-rich upper fraction; Wash oil redistillate (A complex combination of hydrocarbons obtained by the crystallisation of coal tar. It consists of aromatic and polycyclic hydrocarbons primarily fluorene and some acenaphthene.)	648-042-00-4	248-900-0	84989-11-7	M
Creosote oil, acenaphthene fraction, acenaphthene-free; Wash oil redistillate (The oil remaining after removal by a crystallisation process of acenaphthene from acenaphthene oil from coal tar. Composed primarily of naphthalene and alkylnaphthalenes.)	648-043-00-X	292-606-9	90640-85-0	M
Distillates (coal tar), heavy oils; Heavy anthracene oil (Distillate from the fractional distillation of coal tar of bituminous coal, with a boiling point in the	648-044-00-5	292-607-4	90640-86-1	

range of 240ºC – 400ºC (464ºF – 752ºF). Composed primarily of tri- and polynuclear hydrocarbons and heterocyclic compounds.)				
Anthracene oil, acid extraction; Anthracene oil extract residue (A complex combination of hydrocarbons from the base-freed fraction obtained from the distillation of coal tar with a boiling point in the range of approximately 325ºC – 365ºC (617ºF – 689ºF). It contains predominantly anthracene and phenanthrene and their alkyl derivatives.)	648-046-00-6	295-274-3	91995-14-1	M
Distillates (coal tar); Heavy anthracene oil (The distillate from coal tar with a boiling point in the range of approximately 100ºC – 450ºC (212ºF – 842ºF). Composed primarily of two to four membered condensed ring aromatic hydrocarbons, phenolic compounds, and aromatic nitrogen bases.)	648-047-00-1	266-027-7	65996-92-1	M
Distillates (coal tar), pitch, heavy oils; Heavy anthracene oil (The distillate from the distillation of the pitch obtained from bituminous high temperature tar. Composed primarily of tri- and polynuclear aromatic hydrocarbons with a boiling point in the range of approximately 300ºC – 470ºC (572ºF – 878ºF). The preparation may also contain heteroatoms.)	648-048-00-7	295-312-9	91995-51-6	M
Distillates (coal tar); pitch; Heavy anthracene oil (The oil obtained from condensation of the vapours from the heat treatment of pitch. Composed primarily of two- to four-ring aromatic compounds with a boiling point in the range from 200ºC to greater than 400ºC (392ºF to greater than 752ºF).)	648-049-00-2	309-855-7	101316-49-8	M
Distillates (coal tar), heavy oils; pyrene fraction; Heavy anthracene oil redistillate (The redistillate obtained from the fractional distillation of pitch distillate with a boiling point in the range of approximately 350ºC – 400ºC (662ºF – 752ºF). Consists predominantly of tri- and polynuclear aromatic and heterocyclic hydrocarbons.)	648-050-00-8	295-304-5	91995-42-5	M
Distillates (coal tar); pitch; pyrene fraction Heavy anthracene oil redistillate (The redistillate obtained from the fractional distillation of pitch distillate with a boiling point in the range of approximately 380ºC – 410ºC (716ºF – 770ºF). Composed primarily of tri- and	648-051-00-3	295-313-4	91995-52-7	M

polynuclear aromatic hydrocarbons and heterocyclic compounds.)				
Paraffin waxes (coal), brown-coal high temperature tar, carbon-treated; Coal tar extract (A complex combination of hydrocarbons obtained by the treatment of lignite carbonisation tar with activated carbon for removal of impurities and undesirable trace constituents. It consists predominantly of saturated straight and branched chain hydrocarbons with the number of carbon atoms greater than C_{12}.)	648-052-00-9	308-296-6	97926-76-6	M
Paraffin waxes (coal), brown-coal high temperature tar, carbon-treated; Coal tar extract (A complex combination of hydrocarbons obtained by the treatment of lignite carbonisation tar with bentonite for removal of impurities and undesirable trace constituents. It consists predominantly of saturated straight and branched chain hydrocarbons with the number of carbon atoms greater than C_{12}.)	648-053-00-4	308-297-1	97926-77-7	M
Pitch	648-054-00-X	263-072-4	61789-60-4	M
Pitch, coal tar, high temperature (The residue from the distillation of high temperature coal tar. A black, solid mass with a softening point in the range of approximately 30ºC – 180ºC (86ºF – 356ºF). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.)	648-055-00-5	266-028-2	65996-93-2	
Pitch, coal tar, high temperature, heat-treated; Pitch (The heat treated residue from the distillation of high temperature coal tar. A black, solid mass with a softening point in the range of approximately 80ºC – 180ºC (176ºF – 356ºF). Composed primarily of a complex mixture of three or more membered condensed ring aromatic hydrocarbons.)	648-056-00-0	310-162-7	121575-60-8	M
Pitch, coal tar, high temperature, secondary; Pitch redistillate (The residue obtained during the distillation of fractions from bituminous coal high temperature tar with a high boiling point and/or pitch coke oil, with a softening point of 140ºC – 170ºC (284ºF – 392ºF) according to DIN 52025. Composed primarily of tri- and polynuclear aromatic compounds, which also contain heteroatoms.)	648-057-00-6	302-650-3	94114-13-3	M

Residues (coal tar), pitch distillate; Pitch redistillate (Residue from the fractional distillation of pitch distillate with a boiling point in the range of approximately 400ºC – 470ºC (752ºF – 846ºF). Composed primarily of polynuclear aromatic hydrocarbons and heterocyclic compounds.)	648-058-00-1	295-507-9	92061-94-4	M
Tar, coal, high-temperature, distillation and storage residues; Coal tar solid residues (Coke- and ash-containing solid residues that separate in bituminous coal high temperature tar distillation installations and Torage vessels. Consists predominantly of carbon and contains a small quantity of hero compounds as well as ash components.)	648-059-00-7	295-535-1	92062-20-9	M
Tar, coal, storage residues; Coal tar solid residues (The deposit removed from crude coal tar storages. Composed primarily of coal tar and carbonaceous particulate matter.)	648-060-00-2	293-764-1	91082-50-7	M
Tar, coal, high temperature, residues; Coal tar solid residues (Solids formed during the coking of bituminous coal to produce crude bituminous coal high temperature tar. Composed primarily of coke and coal particles, highly aromatised compounds and mineral substances.)	648-061-00-8	309-726-5	100684-51-3	M
Tar, coal, high temperature, high solids content; Coal tar solid residues (The condensation preparation obtained by cooling to approximately room temperature the gas evolved in the destructive distillation of coal at high temperature (greater than 700ºC (1292ºF)). Composed primarily of a complex mixture of condensed ring aromatic hydrocarbons which also contains other coal-type materials.)	648-062-00-3	273-615-7	68990-61-4	M
Waste solids, coal-tar pitch coking; Coal tar solid residues (The combination of wastes formed by the coking of bituminous coal tar pitch. It consists predominantly of carbon.)	648-063-00-9	295-549-8	92062-34-5	M
Extract residues (coal), brown; Coal tar extract (The residue from extraction of dried coal.)	648-064-00-4	294-285-0	91697-23-3	M
Paraffin waxes (coal), brown-coal high temperature tar; Coal tar extract (A complex combination of hydrocarbons obtained from lignite carbonisation tar by solvent	648-065-00-X	295-454-1	92045-71-1	M

crystallisation, by mechanical deoiling or an adducting process. It consists predominantly of straight or branched chain saturated hydrocarbons with the number of carbon atoms predominantly greater than C_{12}.)				
Paraffin waxes (coal), brown-coal high temperature tar, hydrotreated; Coal tar extract (A complex combination of hydrocarbons obtained from lignite carbonisation tar by solvent crystallisation, by mechanical deoiling or an adducting process treated with hydrogen in the presence of a catalyst. It consists predominantly of straight or branched chain saturated hydrocarbons with the number of carbon atoms predominantly greater than C_{12}.)	648-066-00-5	295-455-7	92045-72-2	M
Paraffin waxes (coal), brown-coal high temperature tar, silicic acid-treated; Coal tar extract (A complex combination of hydrocarbons obtained by the treatment of lignite carbonisation tar with silicic acid for removal of undesirable constituents and impurities. It consists predominantly of saturated straight and branched chain hydrocarbons with the number of carbon atoms predominantly greater than C_{12}.)	648-067-00-0	308-298-7	97926-78-8	M
Tar, coal, low temperature, distillation residues; Tar oil with an intermediate boiling point (Residues from fractional distillation of low temperature coal tar to remove oils with a boiling point in the range up to approximately 300ºC (572ºF). Composed primarily of aromatic compounds.)	648-068-00-6	309-887-1	101316-85-2	M
Pitch, coal tar, low temperature Pitch residue (Black solid or thick mass obtained from the distillation of low temperature coal tar. Softening point in the range of approximately 40ºC – 180ºC (104ºF – 356ºF). Composed primarily of a complex mixture of hydrocarbons.)	648-069-00-1	292-651-4	90669-57-1	M
Pitch, coal tar, low temperature, oxidised; Pitch residue, oxidised (The preparation obtained by air-blowing, at elevated temperature, low-temperature coal tar pitch. Softening point in the range of approximately 70ºC – 180ºC (158ºF – 356ºF). Composed primarily of a complex mixture of hydrocarbons.)	648-070-00-7	292-654-0	90669-59-3	M
Pitch, coal tar, low temperature, heat-treated; Pitch residue, oxidised, heat-treated	648-071-00-2	292-653-5	90669-58-2	M

(A complex black solid mass obtained by the heat treatment of low temperature coal tar pitch with a softening point within the approximate range of 50ºC – 140ºC (122ºF – 284ºF). Composed primarily of a complex mixture of aromatic compounds.)				
Distillates (coal-petroleum), condensed-ring aromatic substances; Distillates (The distillate from a mixture of coal and tar and aromatic petroleum streams with a distillation temperature in the approximate range of 220ºC – 450ºC (482ºF – 842ºF). Composed primarily of 3- to 4-membered condensed ring aromatic hydrocarbons.)	648-072-00-8	269-159-3	68188-48-7	M
Aromatic hydrocarbons, C_{20-28}, polycyclic, mixed coal-tar pitch-polyethylene-polypropylene pyrolysis-derived; Pyrolysis preparations (A complex combination of hydrocarbons obtained from mixed coal tar pitch-polyethylene-polypropylene pyrolysis. Composed primarily of polycyclic aromatic hydrocarbons with the number of carbon atoms predominantly in the range of C_{20}-C_{28} and a softening point in the range of 100ºC – 220ºC (212ºF – 428ºF) (according to DIN 52025).)	648-073-00-3	309-956-6	101794-74-5	M
Aromatic hydrocarbons, C_{20-28}, polycyclic, mixed coal-tar pitch-polyethylene pyrolysis-derived; Pyrolysis preparations (A complex combination of hydrocarbons obtained from mixed coal tar pitch-polyethylene pyrolysis. Composed primarily of polycyclic aromatic hydrocarbons with the number of carbon atoms predominantly in the range of C_{20-28} and having a softening point in the range of 100ºC – 220ºC (212ºF – 428ºF) (according to DIN 52025).)	648-074-00-9	309-957-1	101794-75-6	M
Aromatic hydrocarbons, C_{20-28}, polycyclic, mixed coal-tar pitch-polystyrene pyrolysis-derived; Pyrolysis preparations (A complex combination of hydrocarbons obtained from mixed coal tar pitch-polystyrene pyrolysis. Composed primarily of polycyclic aromatic hydrocarbons with the number of carbon atoms predominantly C_{20-28} and a softening point in the range of 100ºC – 220ºC (212ºF – 428ºF) (according to DIN 52025).)	648-075-00-4	309-958-7	101794-76-7	M
Pitch, coal tar-petroleum; Pitch residues (The residue from the distillation of a mixture of	648-076-00-X	269-109-0	68187-57-5	M

coal tar and aromatic petroleum streams. A solid substance with a softening point in the range of 40ºC – 180ºC (140ºF – 356ºF). Composed primarily of a complex combination of three or more membered condensed ring aromatic hydrocarbons.)				
Phenanthrene, distillation residues; Heavy anthracene oil redistillate (Residue from the distillation of crude phenanthrene with a boiling point in the range of approximately 340ºC – 420ºC (644ºF – 788ºF). It consists predominantly of phenanthrene, anthracene and carbazole.)	648-077-00-5	310-169-5	122070-78-4	M
Distillates (coal tar), upper fraction, fluorene-free; Wash oil redistillate (A complex combination of hydrocarbons obtained by the crystallisation of tar oil. It consists of aromatic polycyclic hydrocarbons, primarily diphenyl, dibenzofuran and acenaphthene.)	648-078-00-0	284-899-7	84989-10-6	M
Residues (coal tar), creosote oil distillation;; Wash oil redistillate (The residue from the fractional distillation of wash oil with a boiling point in the range of approximately 270ºC – 330ºC (518ºF – 626ºF). It consists predominantly of dinuclear aromatic and heterocyclic hydrocarbons.)	648-080-00-1	295-506-3	92061-93-3	M
Distillates (coal), coke-oven light oil, naphthalene cut; Naphthalene oil (The complex combination of hydrocarbons obtained from prefractionation distillation of coke oven light oil. It consists predominantly of naphthalene, coumarone and indene and boils above 148ºC (298ºF).)	648-084-00-3	285-076-5	85029-51-2	J, M
Distillates (coal tar), naphthalene oils, low naphthalene content; Naphthalene oil redistillate (A complex combination of hydrocarbons obtained by the crystallisation of naphthalene oil. Composed primarily of naphthalene, alkyl naphthalenes and phenolic compounds.)	648-086-00-4	284-898-1	84989-09-3	J, M
Distillates (coal tar), naphthalene oil crystallisation filtrate; Naphthalene oil redistillate (A complex combination of organic substances obtained as a filtrate from the crystallisation of the naphthalene fraction from coal tar with a boiling point in the range of approximately 200ºC – 230ºC (392ºF – 446ºF). Composed	648-087-00-X	295-310-8	91995-49-2	J, M

primarily of naphthalene, thionaphthene and alkylnaphthalenes.)				
Extract residues (coal), naphthalene oil, alkali; Naphthalene oil extract residue (A complex combination of hydrocarbons obtained from the alkali washing of naphthalene oil to remove phenolic compounds (tar acids). It is composed of naphthalene and alkyl naphthalenes.)	648-088-00-5	310-166-9	121620-47-1	J, M
Extract residues (coal), naphthalene oil, alkali, low naphthalene content; Naphthalene oil extract residue (A complex combination of hydrocarbons remaining after the removal of naphthalene from alkali-washed naphthalene oil by a crystallisation process. It is composed primarily of naphthalene and alkyl naphthalenes.)	648-089-00-0	310-167-4	121620-48-2	J, M
Distillates (coal tar), naphthalene oils, naphthalene-free, alkali extracts; Naphthalene oil extract residue (The oil remaining after the removal of phenolic compounds (tar acids) from drained naphthalene oil by an alkali wash. It is composed primarily of naphthalene and alkyl naphthalenes.)	648-090-00-6	292-612-1	90640-90-7	J, M
Extract residues (coal), alkali-treated naphthalene oil, distillation overheads; Naphthalene oil extract residue (The distillation from alkali-washed naphthalene oil with a distillation point in the range of approximately 180ºC – 220ºC (356ºF – 428ºF). It is composed primarily of naphthalene alkylbenzenes, indene and indan.).)	648-091-00-1	292-627-3	90641-04-6	J, M
Distillates (coal tar), naphthalene oils, methylnaphthalene fraction; Methylnaphthalene oil (A distillate obtained from the fractional distillation of high temperature coal tar. Composed primarily of substituted two ring aromatic hydrocarbons and aromatic nitrogen bases with a boiling point in the range of approximately 225ºC – 255ºC (437ºF – 491ºF).)	648-092-00-7	309-985-4	101896-27-9	J, M
Distillates (coal tar), naphthalene oils, indole-methylnaphthalene fraction; Methylnaphthalene oil (A distillate obtained from the fractional distillation of high temperature coal tar. Composed primarily of indole and methylnaphthalene with a boiling point in the	648-093-00-2	309-972-3	101794-91-6	J, M

range of approximately 235ºC – 255ºC (455ºF – 491ºF).)				
Distillates (coal tar), naphthalene oils, acid extraction; Methylnaphthalene oil extract residue (A complex combination of hydrocarbons obtained by debasing the methylnaphthalen fraction obtained by the distillation of coal tar with a boiling point in the range of approximately 230ºC – 255ºC (466ºF – 491ºF). Composed primarily of 1(2)-methylnaphthalene, naphthalene, dimethylnaphthalene and biphenyl.)	648-094-00-8	295-309-2	91995-48-1	J, M
Extract residues (coal), alkali-treated naphthalene oil, distillation residues; Methylnaphthalene oil extract residue (The residue from the distillation of alkali-washed naphthalene oil with a boiling point in the range of approximately 220ºC – 300ºC (428ºF – 572ºF). Composed primarily of naphthalene, alkyl naphthalenes and aromatic nitrogen bases.)	648-095-00-3	292-628-9	90641-05-7	J, M
Extract oils (coal), acidic, tar-base free; Methylnaphthalene oil extract residue (The extract oil with a boiling point in the range of approximately 220ºC – 265ºC (428ºF – 509ºF) from coal tar alkaline extract residue produced by an acidic wash (for example, aqueous sulphuric acid) after distillation to remove tar bases. Composed primarily of alkylnaphthalenes.)	648-096-00-9	284-901-6	84989-12-8	J, M
Distillates (coal tar), benzole fraction, distillation residues; Wash oil (A complex combination of hydrocarbons obtained from the distillation of crude benzole (high temperature coal tar). It may be a liquid with the approximate distillation range of 150ºC – 300ºC (302ºF – 572ºF) or a semi-solid or solid with a melting point up to 70ºC (158ºF). It is composed primarily of naphthalene and alkyl naphthalenes.)	648-097-00-4	310-165-3	121620-46-0	J, M
Creosote oil, distillate with a high boiling point; Wash oil (The distillation fraction with a high boiling point obtained from the high temperature carbonisation of bituminous coal, which is further refined to remove excess crystalline salts. It consists primarily of creosote oil with some of the normal polynuclear aromatic salts, which are components of coal tar distillates, removed. It is	648-100-00-9	274-565-9	70321-79-8	J, M

crystal free at approximately 5°C (41°F).)				
Extract residues (coal), creosote oil acid; Wash oil extract residue (A complex combination of hydrocarbons from the base-freed fraction from the distillation of coal tar with a boiling point in the range of approximately 250°C – 280°C (482°F – 536°F). It consists predominantly of biphenyl and isomeric diphenylnaphthalenes.)	648-102-00-X	310-189-4	122384-77-4	J, M
Anthracene oil, anthracene paste; Anthracene oil fraction (The anthracene-rich solid obtained by the crystallisation and centrifuging of anthracene oil. It is composed primarily of anthracene, carbazole and phenanthrene.)	648-103-00-5	292-603-2	90640-81-6	J, M
Anthracene oil, low anthracene content; Anthracene oil fraction (The oil remaining after the removal, by a crystallisation process, of an anthracene-rich solid (anthracene paste) from anthracene oil. It is composed primarily of two, three and four membered aromatic hydrocarbons.)	648-104-00-0	292-604-8	90640-82-7	J, M
Residues (coal tar), anthracene oil distillate; Anthracene oil fraction (The residue from the fraction distillation of crude anthracene with a boiling point in the approximate range of 340°C – 400°C (644°F – 752°F). Composed primarily of tri- and polynuclear aromatic and heterocyclic hydrocarbons.)	648-105-00-6	295-505-8	92061-92-2	J, M
Anthracene oil, anthracene paste, anthracene fraction; Anthracene oil fraction (A complex combination of hydrocarbons from the distillation of anthracene obtained by the crystallisation of anthracene oil from bituminous high temperature tar with a boiling point in the range of 330°C – 350°C (626°F – 662°F). It is composed primarily of anthracene, carbazole and phenanthrene.)	648-106-00-1	295-275-9	91995-15-2	J, M
Anthracene oil, anthracene paste, carbazole fraction; Anthracene oil fraction (A complex combination of hydrocarbons from the distillation of anthracene obtained by crystallisation of anthrancene oil from bituminous coal high temperature tar with a boiling point in the approximate range of 350°C – 360°C (662°F – 680°F). It is composed primarily of anthracene, carbazole and	648-107-00-7	295-276-4	91995-16-3	J, M

phenanthrene.)				
Anthracene oil, anthracene paste, distillation light fractions; Anthracene oil fraction (A complex combination of hydrocarbons from the distillation of anthracene obtained by crystallisation of anthracene oil from bituminous light temperature tar with a boiling point in the range of approximately 290ºC – 340ºC (554ºF – 644ºF). Composed primarily of trinuclear aromatic hydrocarbons and their dihydro derivatives.)	648-108-00-2	295-278-5	91995-17-4	J, M
Tar oils, coal, low temperature; Tar oil, high boiling point (A distillate from low-temperature coal tar. Composed primarily of hydrocarbons, phenolic compounds and aromatic nitrogen bases with a boiling point in the range of approximately 160ºC - 40ºC (554ºF - 644ºF).)	648-109-00-8	309-889-2	101316-87-4	J, M
Phenols, ammonia hydroxide extract; Alkaline extract (The combination of phenols extracted, using isobutylacetate, from the ammonia condensed from the gas evolved in low-temperature (less than 700ºC (1292ºF)) destructive distillation of coal. It consists predominantly of a mixture of monohydric and dihydric phenols.)	648-111-00-9	284-881-9	84988-93-2	J, M
Distillates (coal tar), light oils, alkali extraction; Alkaline extract (The aqueous extract from carbolic oil produced by an alkaline wash (for example, aqueous sodium hydroxide). Composed primarily of the alkali salts of various phenolic compounds.)	648-112-00-4	292-610-0	90640-88-3	J, M
Extracts, coal tar oil alkaline; Alkaline extract (The extract from coal tar oil produced by an alkaline wash (for example, aqueous sodium hydroxide). Composed primarily of the alkali salts of various phenolic compounds.)	648-113-00-X	266-017-2	65996-83-0	J, M
Distillates (coal tar), naphthalene oils, alkaline extracts; Alkaline extract (The extract from naphthalene oil produced by an alkaline wash (for example, aqueous sodium hydroxide). Composed primarily of the alkali salts of various phenolic compounds.)	648-114-00-5	292-611-6	90640-89-4	J, M
Extract residues (coal), tar oil alkaline, carbonated, limed; Crude phenols (The preparation obtained by treatment of coal tar oil alkaline extract with carbon dioxide and calcium oxide. Composed primarily of $CaCO_3$,	648-115-00-0	292-629-4	90641-06-8	J, M

$Ca(OH)_2$, Na_2CO_3 and other organic and inorganic impurities.)				
Tar acids, brown-coal, crude; Crude phenols (An acidified alkaline extract of brown coal tar distillate. Composed primarily of phenol and phenol analogues.)	648-117-00-1	309-888-7	101316-86-3	J, M
Tar acids, brown-coal gasification; Crude phenols (A complex combination of organic substances obtained from brown coal gasification. Composed primarily of C_{6-10} hydroxy aromatic phenols and their analogues.)	648-118-00-7	295-536-7	92062-22-1	J, M
Tar acids, distillation residues; Distillate phenols (A residue from the distillation of crude phenol from coal. It consists predominantly of phenols with the number of carbon atoms C_{8-10} and a softening point in the range of 60ºC - 80ºC (140ºF - 176ºF).)	648-119-00-2	306-251-5	96690-55-0	J, M
Tar acids, methylphenol fraction; Distillate phenols (The fraction of tar acid rich in 3- and 4-methylphenol, recovered by distillation of low-temperature coal tar crude tar acids.)	648-120-00-8	284-892-9	84989-04-8	J, M
Tar acids, polyalkylphenol fraction; Distillate phenols (The fraction of tar acids, recovered by distillation of low-temperature coal tar crude tar acids, with a boiling point in the range of approximately 225ºC – 320ºC (437ºF – 608ºF). Composed primarily of polyalkylphenols.)	648-121-00-3	284-893-4	84989-05-9	J, M
Tar acids, xylenol fraction; Distillate phenols (The fraction of tar acids, rich in 2,4-and 2,5-dimethylphenol, recovered by distillation of low-temperature coal tar crude tar acids.)	648-122-00-9	284-895-5	84989-06-0	J, M
Tar acids, ethylphenol fraction; Distillate phenols (The fraction of tar acids, rich in 3- and 4-ethylphenol, recovered by distillation of low-temperature coal tar crude tar acids.)	648-123-00-4	284-891-3	84989-03-7	J, M
Tar acids, 3,5-xylenol fraction; Distillate phenols (The fraction of tar acids, rich in 3,5-dimethylphenol, recovered by distillation of low-temperature coal tar acids.)	648-124-00-X	284-896-0	84989-07-1	J, M
Tar acids, residues, distillates, first-cut; Distillate phenols (The residue from the distillation of light carbolic oil in the range of 235ºC – 355ºC (481ºF – 697ºF).	648-125-00-5	270-713-1	68477-23-6	J, M

Tar acids, cresylic fraction, residues; Distillate phenols (The residue from crude coal tar acids after removal of phenol, cresols, xylenols and any higher boiling phenols. A black solid with a melting point approximately 80°C (176°F). Composed primarily of polyalkyphenols, resin and inorganic salts.)	648-126-00-0	271-418-0	68555-24-8	J, M
Phenols, C_{9-11}; Distillate phenols	648-127-00-6	293-435-2	91079-47-9	J, M
Tar acids, cresylic fraction; Distillate phenols (A complex combination of organic compounds obtained from brown coal with a boiling point in the range of approximately 200°C – 230°C (392°F – 446°F). Composed primarily of phenols and pyridine bases.)	648-128-00-1	295-540-9	92062-26-5	J, M
Tar acids, brown-coal, C_2-alkylphenol fraction; Distillate phenols (The distillate from the acidification of alkaline washed lignite tar distillate with a boiling point in the range of approximately 200°C – 230°C (392°F – 446°F). Composed primarily of m- and p-ethylphenol, cresols and xylenols.)	648-129-00-7	302-662-9	94114-29-1	J, M
Extract oils (coal), naphthalene oils; Acid extract (The aqueous extract produced by an acidic wash of alkali-washed naphthalene oil. Composed primarily of acid salts of various aromatic nitrogen bases (including pyridine, quinoline and their alkyl derivatives).)	648-130-00-2	292-623-1	90641-00-2	J, M
Tar bases, quinoline derivatives; Distillate bases	648-131-00-8	271-020-7	68513-87-1	J, M
Tar bases, coal, quinoline derivatives fraction; Distillate bases	648-132-00-3	274-560-1	70321-67-4	J, M
Tar bases, coal, distillation residues; Distillate bases (The distillation residue remaining after the distillation of the neutralised, acid extracted base-containing tar fractions (obtained by the distillation of coal tars). It contains primarily aniline, collidines, quinoline and quinoline derivatives and toluidines.)	648-132-00-9	274-544-0	92062-29-8	J, M
Hydrocarbon oils, aromatised, mixed with polyethylene and polypropylene, pyrolysed, light oil fraction; Heat treatment preparations (The oil obtained from the heat treatment of a polyethylene-polypropylene mixture with coal tar pitch or aromatic oils. It consists predominantly of benzene and its analogues with a boiling point in a range of approximately 70°C – 120°C (158°F – 248°F).)	648-134-00-4	309-745-9	100801-63-6	J, M

Hydrocarbon oils, aromatised, mixed with polyethylene, pyrolysed, light oil fraction; Heat treatment preparations (The oil obtained from the heat treatment of polyethylene mixture with coal tar pitch or aromatic oils. It consists predominantly of benzene and its analogues with a boiling point in the range of 70ºC – 120ºC (158ºF – 248ºF).)	648-135-00-X	309-748-5	100801-65-8	J, M
Hydrocarbon oils, aromatised, mixed with polystyrene, pyrolysed, light oil fraction; Heat treatment preparations (The oil obtained from the heat treatment of polystyrene mixture with coal tar pitch or aromatic oils. It consists predominantly of benzene and its homologues with a boiling point in the range of approximately 70ºC – 210ºC (158ºF – 410ºF).)	648-136-00-5	309-749-0	100801-66-9	J, M
Extract residues (coal), alkali-treated tar oil, naphthalene distillation residues; Naphthalene oil extract residue (The residue obtained from chemical oil extracted after the removal of naphthalene by distillation. Composed primarily of two to four membered condensed ring aromatic hydrocarbons and aromatic nitrogen bases.)	648-137-00-0	277-567-8	736665-18-6	J, M
Creosote oil, distillate with a low boiling point; Wash oil (The distillation fraction with a low boiling point obtained from the high temperature carbonisation of bituminous coal, which is further refined to remove excess crystalline salts. It consists primarily of creosote oil from which some of the normal polynuclear aromatic salts have been removed. It is crystal-free at approximately 38ºC (100ºF).)	648-138-00-6	274-566-4	70321-80-1	J, M
Tar acids, cresylic, sodium salts, caustic solutions; Alkaline extract	648-139-00-1	272-361-4	68815-21-4	J, M
Extract oils (coal), tar base; Acid extract (The extract from coal tar oil alkaline extract residue produced by an aqueous acidic wash (for example, sulphuric acid) after distillation to remove naphthalene. Composed primarily of the acid salts of various aromatic nitrogen bases including pyridine, quinoline, and their alkyl derivatives.)	648-140-00-7	266-020-9	65996-86-3	J, M
Tar bases, coal, crude; Crude tar bases (The reaction preparation obtained by neutralising coal tar base extract oil with an	648-141-00-2	266-018-8	65996-84-1	J, M

alkaline aqueous solution (for example, sodium hydroxide), to obtain bases. Composed primarily of such organic bases as acridine, phenanthridine, pyridine, quinoline and their alkyl derivatives.)				
Residues (coal), liquid solvent extraction; (A cohesive powder composed of coal mineral matter and undissolved coal remaining after extraction of coal by a liquid solvent.)	648-142-00-8	302-681-2	94114-46-2	M
Coal liquids, liquid solvent extraction solution; (The preparation obtained by filtration of coal mineral matter and undissolved coal from coal extract solution produced by digesting coal in a liquid solvent. A black, viscous, highly complex liquid combination composed primarily of aromatic and partly hydrogenated aromatic hydrocarbons, aromatic nitrogen compounds, aromatic sulphur compounds, phenolic and other aromatic oxygen compounds and their alkyl derivatives.)	648-143-00-3	302-682-8	94114-47-3	M
Coal liquids, liquid solvent extraction; (The substantially solvent-free preparation obtained by the distillation of the solvent from filtered coal extract solution produced by digesting coal in a liquid solvent. A black semi-solid, composed primarily of a complex combination of condensed-ring aromatic hydrocarbons, aromatic nitrogen compounds, aromatic sulphur compounds, phenolic compounds and other aromatic oxygen compounds, and their alkyl derivatives.)	648-144-00-9	302-683-3	94114-48-4	M
Light oil(coal), coke-oven; Crude benzole (The volatile organic liquid extracted from the gas evolved in the high temperature (greater than 700ºC (1292ºF)) destructive distillation of coal. Composed primarily of benzene, toluene, and xylenes. May contain other minor hydrocarbon constituents.)	648-147-00-5	266-012-5	65996-78-3	J
Distillates (coal), liquid solvent extraction, primary; (The liquid preparation obtained from condensation of vapours emitted during the digestion of coal in a liquid solvent with a boiling point in the range of approximately 30ºC – 300ºC (86ºF – 572ºF). Composed primarily of partly hydrogenated condensed-ring aromatic hydrocarbons, aromatic compounds containing nitrogen, sulphur and oxygen, and their alkyl	648-148-00-0	302-688-0	94114-52-0	J

derivatives with the number of carbon atoms predominantly in the range of C_4-C_{14}.)				
Distillates (coal), solvent extraction, hydro-cracked (Distillate obtained by hydrocracking of coal extract or solution produced by the liquid solvent extraction or supercritical gas extraction process. Boiling point of the distillate is in the range of approximately 30ºC – 300ºC (86ºF – 572ºF). Composed primarily of aromatic, hydrogenated aromatic and naphthenic compounds, their alkyl derivatives and alkanes with the number of carbon atoms predominantly in the range of C_4-C_{14}. Contains also nitrogen, sulphur and oxygen-containing aromatic and hydrogenated aromatic compounds.)	648-149-00-6	302-689-6	94114-53-1	J
Naphta (coal), solvent extraction, hydro-cracked (The distillate fraction obtained by hydrocracking of coal extract (or solution produced by the liquid solvent extraction or super critical gas extraction processes) with a boiling point in the range of approximately 30ºC – 180ºC (86ºF – 356ºF). Composed primarily of aromatic, hydrogenated aromatic and naphthenic compounds, their alkyl derivatives and alkanes with the number of carbon atoms predominantly in the range of C_4 to C_9. Contains also nitrogen, sulphur and oxygen-containing aromatic and hydrogenated aromatic compounds.)	648-150-00-1	302-690-1	94114-54-2	J
Gasoline, coal solvent extraction, hydrocracked naphtha (Motor fuel produced by the reforming of the refined naphtha fraction (obtained in hydrocracking of coal extract, coal extract solution or a preparation produced by the liquid solvent extraction or supercritical gas extraction processes) with a boiling point in the range of approximately 30ºC – 180ºC (86ºF – 356ºF). Composed primarily of aromatic, naphthenic hydrocarbons, their alkyl derivatives, as well as alkyl hydrocarbons with the number of carbon atoms predominantly in the range of C_4 to C_9.	648-151-00-7	302-691-7	94114-55-3	J
Distillates (coal), solvent extraction, hydro-cracked middle (Distillate obtained from the hydrocracking of coal extract or coal extraction solution produced by the liquid solvent extraction or super critical gas extraction processes with a boiling point in	648-152-00-2	302-692-2	94114-56-4	J

the range of approximately 180ºC – 300ºC (356ºF – 572ºF). Composed primarily of two-ring aromatic, hydrogenated aromatic and naphthenic compounds, their alkyl derivatives and alkanes with the number of carbon atoms predominantly in the range of C_9 to C_{14}. Contains also nitrogen, sulphur and oxygen-containing compounds.)				
Distillates (coal), solvent extraction, hydro-cracked hydrogenated middle (Distillate from the hydrogenation of hydrocracked middle distillate from coal extract or solution produced by the liquid solvent extraction or supercritical gas extraction processes with a boiling point in the range of approximately 180ºC – 280ºC (356ºF – 536ºF). Composed primarily of hydrogenated two-ring carbon compounds and their alkyl derivatives with the number of carbon atoms predominantly in the range of C_9 to C_{14}.)	648-153-00-8	302-693-8	94114-57-5	J
Light oil (coal), semi-coking process; Fresh oil (The volatile organic liquid condensed from the gas evolved in the low temperature (less than 700ºC (1292ºC)) destructive distillation of coal. Composed primarily of hydrocarbons with the number of carbon atoms predominantly C_{6-10}.)	648-156-00-4	292-635-7	90641-11-5	J
Extracts (petroleum), light naphthenic distillate solvent	649-001-00-3	265-102-1	64742-03-6	
Extracts (petroleum), heavy paraffinic distillate solvent	649-002-00-9	265-103-7	64742-04-7	
Extracts (petroleum), light paraffinic distillate solvent	649-003-00-4	265-104-2	64742-05-8	
Extracts (petroleum), heavy naphthenic distillate solvent	649-004-00-X	265-111-0	64742-11-6	
Extracts (petroleum), light vacuum gas oil solvent	649-005-00-5	295-341-7	91995-78-7	
Hydrocarbons C_{26-55}, rich in aromatic compounds	649-006-00-0	307-753-7	97722-04-8	
Residues (petroleum), atmospheric tower, Heavy fuel oil; (A complex residuum from the atmospheric distillation of crude oil. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and with a boiling point above approximately 350ºC (662ºF). It is likely to contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-008-00-1	265-045-2	64741-45-3	

Gas oils (petroleum), heavy vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced by vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_{20}-C_{50} and a boiling point in the range of approximately 350ºC - 600ºC (662ºF - 1112ºF). It may contain 5% more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-009-00-7	265-058-3	64741-57-7	
Distillates (petroleum), heavy catalytic cracked; Heavy fuel oil (A complex combination of hydrocarbons produced by the distillation of preparations from a catalytic cracking process. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_{15}-C_{35} and a boiling point in the range of approximately 260ºC - 500ºC (500ºF - 932ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-010-00-2	265-063-0	64741-61-3	
Clarified oils (petroleum), catalytic cracked; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from distillation of the preparations from a catalytic cracking process. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and a boiling point above 350ºC (662ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-011-00-8	265-064-6	64741-62-4	
Residues (petroleum), hydrocracked; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from distillation of the hydrocracking preparations. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and a boiling point above 350ºC (662ºF).)	649-012-00-3	265-076-1	64741-75-9	
Residues (petroleum), thermal cracked; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from distillation of thermal cracking preparations. It consists predominantly of unsaturated hydrocarbons with	649-013-00-9	265-081-9	64741-80-6	

the number of carbon atoms predominantly greater than C_{20} and a boiling point above 350ºC (662ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)				
Distillates (petroleum), heavy thermal cracked; Heavy fuel oil (A complex combination of hydrocarbons obtained by the distillation of thermal cracking preparations. It consists predominantly of unsaturated hydrocarbons with the number of carbon atoms predominantly in the range of C_{15}-C_{36} and a boiling point in the range of approximately 260ºC - 480ºC (500ºF - 896ºF). It may contain 5% or more or 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-014-00-4	265-082-4	64741-81-7	
Gas oils (petroleum), hydrotreated vacuum; Heavy fuel oil (A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_{13}-C_{50} and a boiling point in the range of approximately 230ºC - 600ºC (446ºF - 1112ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-015-00-X	265-162-9	64742-59-2	
Residues (petroleum) hydrodesulphurised atmospheric tower; Heavy fuel oil (A complex combination of hydrocarbons obtained by treating an atmospheric tower residuum with hydrogen in the presence of a catalyst under conditions primarily to remove organic sulphur compounds. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and a boiling point above approximately 350ºC (662ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-016-00-5	265-181-2	64742-78-5	
Gas oils (petroleum), hydrodesulphurised vacuum; Heavy fuel oil (A complex combination of hydrocarbons obtained from a catalytic hydrodesulphurisation process. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_{20}-C_{50} and a boiling point in the range of approximately 350ºC - 600ºC (662ºF - 1112ºF). May contain 5% or more of 4- to 6-	649-017-00-0	265-189-6	64742-86-5	

membered condensed ring aromatic hydrocarbons.)				
Residues (petroleum), steam-cracked; Heavy fuel oil (A complex combination of hydrocarbons obtained as the residual fraction from the distillation of steam cracking preparations (including steam cracking to produce ethylene). It consists predominantly of unsaturated hydrocarbons with the number of carbon atoms predominantly greater than C_{14} and a boiling point above approximately 260°C (500°F). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-018-00-6	265-193-8	64742-90-1	
Residues (petroleum), atmospheric distillation; Heavy fuel oil (A complex residuum from atmospheric distillation of crude oil. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{11} and a boiling point above 200°C (392°F). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-019-00-1	269-777-3	68333-22-2	
Clarified oils (petroleum), hydrodesulphurised catalytic cracked; Heavy fuel oil (A complex combination of hydrocarbons obtained by treating catalytic cracked clarified oil with hydrogen to convert organic sulphur to hydrogen sulphide that is removed. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and a boiling point above 350°C (662°F). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-020-00-7	269-782-0	68333-26-6	
Distillates (petroleum), hydrodesulphurised intermediate catalytic cracked; Heavy fuel oil (A complex combination of hydrocarbons obtained by treating intermediate catalytic cracked distillates with hydrogen to convert organic sulphur to hydrogen sulphide that is removed. It consists of hydrocarbons with the number of carbon atoms predominantly C_{11}-C_{30} and a boiling point in the range of approximately 205°C - 450°C (401°F - 842°F). It contains a relatively large proportion of tricyclic aromatic hydrocarbons.)	649-021-00-2	269-783-6	68333-27-7	
Distillates (petroleum), hydrodesulphurised heavy catalytic cracked; Heavy fuel oil	649-022-00-8	269-784-1	68333-28-8	

(A complex combination of hydrocarbons obtained by treatment of heavy catalytic cracked distillates with hydrogen to convert organic sulphur to hydrogen sulphide that is removed. It consists of hydrocarbons with the number of carbon atoms predominantly C_{15}-C_{35} and a boiling point in the range of approximately 260ºC - 500ºC (500ºF - 932ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)				
Fuel oil, residues-straight-run gas oils with high sulphur content; Heavy fuel oil	649-023-00-3	270-674-0	68476-32-4	
Fuel oil, residual; Heavy fuel oil (The liquid preparation from various refinery streams (usually residues). The composition is complex and varies with the source of the crude oil.)	649-024-00-9	270-675-6	68476-33-5	
Residues (petroleum), catalytic reformer residue distillation; Heavy fuel oil (A complex residuum from the distillation of catalytic reformer fractionator residue. It boils above approximately 399ºC (750ºF).)	649-025-00-4	270-792-2	68478-13-7	
Residues (petroleum), heavy coker gas oil and vacuum gas oil; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from the distillation of heavy coker gas oil and vacuum gas oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly greater than C_{13} and a boiling point above approximately 230ºC (446ºF).)	649-026-00-X	270-796-4	68478-17-1	
Residues (petroleum), heavy coker and light vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from the distillation of heavy coker gas oil and light vacuum gas oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly greater than C_{13} and a boiling point above approximately 230ºC (446ºF).)	649-027-00-5	270-983-0	68512-61-8	
Residues (petroleum), light vacuum; Heavy fuel oil (A complex residuum from the vacuum distillation of the residuum from the atmospheric distillation of crude oil. It consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{13} and a boiling point above approximately 230ºC (446ºF).)	649-028-00-0	270-984-6	68512-62-9	

Residues (petroleum), steam-cracked light; Heavy fuel oil (A complex residuum from the distillation of the steam-cracking preparations. It consists predominantly of aromatic and unsaturated hydrocarbons with the number of carbon atoms greater than C_7 and a boiling point in the range of approximately 101ºC - 555ºC (214ºF - 1030ºF).)	649-029-00-6	271-013-9	68513-69-9	
Fuel oil, No 6; Heavy fuel oil (A distillate oil with a viscosity from 900 SUS to 9000 SUS at the temperature of 37.7ºC (100ºF).)	649-030-00-1	271-384-7	68553-00-4	
Residues (petroleum), topping plant, low sulphur content; Heavy fuel oil (A complex combination of hydrocarbons with low sulphur content produced as the residual fraction from the distillation of crude oil. It is the residuum after the straight-run gasoline cut, kerosene cut and gas oil cut have been removed.)	649-031-00-7	271-763-7	68607-30-7	
Gas oils (petroleum), heavy atmospheric; Heavy fuel oil (A complex combination of hydrocarbons obtained by the distillation of crude oil. It consists of hydrocarbons with the number of carbon atoms predominantly C_7-C_{35} and a boiling point in the range of approximately 121ºC - 510ºC (250ºF - 950ºF).)	649-032-00-2	272-184-2	68783-08-4	
Residues (petroleum), coker scrubber, condensed-ring-aromatic-containing; Heavy fuel oil (A very complex combination of hydrocarbons produced as the residual fraction from the distillation of vacuum residuum and thermal cracking preparations. It predominantly consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{20} and a boiling point above approximately 350ºC (662ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-033-00-8	272-187-9	68783-13-1	
Distillates (petroleum), petroleum residues vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced by the vacuum distillation of the residuum from the atmospheric distillation of crude oil.)	649-034-00-3	273-263-4	68955-27-1	
Residues (petroleum), resinous, steam-cracked; Heavy fuel oil (A complex residuum from the distillation of	649-035-00-9	273-272-3	68955-36-2	

steam-cracked petroleum residues.)				
Distillates (petroleum), intermediate vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced by the vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_{14}-C_{42} and a boiling point in the range of approximately 250ºC - 545ºC (482ºF - 1013ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-036-00-4	274-683-0	70592-76-6	
Distillates (petroleum), light vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced by the vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_{11}-C_{35} and a boiling point in the range of approximately 150ºC - 545ºC (482ºF - 1013ºF).)	649-037-00-X	247-684-6	70592-77-7	
Distillates (petroleum), vacuum distillation; Heavy fuel oil (A complex combination of hydrocarbons produced by the vacuum distillation of the residuum from atmospheric distillation of crude oil. It consists of hydrocarbons with the number of carbon atoms predominantly C_{11}-C_{50} and a boiling point in the range of approximately 270ºC - 600ºC (518ºF - 1112ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-038-00-5	274-685-1	70592-78-8	
Gas oils (petroleum), hydrodesulphurised coker heavy vacuum; Heavy fuel oil (A complex combination of hydrocarbons obtained by hydrodesulphurisation of heavy coker distillate preparation.. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_{18}-C_{44} and a boiling point in the range of approximately 304ºC - 548ºC (579ºF - 1018ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-039-00-0	285-555-9	85117-03-9	
Residues (petroleum), steam-cracked, distillates; Heavy fuel oil (A complex combination of hydrocarbons obtained during the preparationion of refined petroleum tar by the distillation of steam cracked	649-040-00-6	292-657-7	90669-75-3	

tar. It consists predominantly of aromatic and other hydrocarbons, as well as organic sulphur compounds.)				
Residues (petroleum), light vacuum; Heavy fuel oil (A complex combination of hydrocarbons produced by the vacuum distillation of the residuum from atmospheric distillation of crude oil. It predominantly consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{24} and a boiling point above 390ºC (734ºF).)	649-041-00-1	292-658-2	90669-76-4	
Fuel oil, heavy, high sulphur content; Heavy fuel oil (A complex combination of hydrocarbons obtained by the distillation of crude petroleum. It consists predominantly of aliphatic, aromatic and cycloaliphatic hydrocarbons with the number of carbon atoms predominantly higher than C_{25} and a boiling point above approximately 400ºC (752ºF).)	649-042-00-7	295-396-7	92045-14-2	
Residues (petroleum), catalytic cracking; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from the distillation of the catalytic cracking preparations. It predominantly consists of hydrocarbons with the number of carbon atoms predominantly greater than C_{11} and a boiling point above approximately 200ºC (392ºF).)	649-043-00-2	295-511-0	92061-97-7	
Distillates (petroleum), intermediate catalytic cracked, thermally degraded; Heavy fuel oil (A complex combination of hydrocarbons produced by the distillation of catalytic cracking preparations, which has been used as a heat transfer fluid. It consists predominantly of hydrocarbons with a boiling point in the range of approximately 220ºC – 450ºC (428ºF – 842ºF). The preparation may contain organic sulphur compounds.)	649-044-00-8	295-990-6	92201-59-7	
Residual oils (petroleum); Heavy fuel oil (A complex combination of hydrocarbons, sulphur compounds and metal-containing organic compounds obtained as the residue from refinery fractionation cracking processes. The preparation is oil with a viscosity above 2 cSt. at 100ºC.)	649-045-00-3	298-754-0	93821-66-0	
Residues, steam cracked, thermally treated;	649-046-00-9	308-733-0	98219-64-8	

Heavy fuel oil (A complex combination of hydrocarbons obtained by the treatment and distillation of raw steam-cracked naphtha. It consists predominantly of unsaturated hydrocarbons with a boiling point in the range above approximately 180ºC (356ºF).)				
Distillates (petroleum), hydrodesulphurised full-range middle; Heavy fuel oil (A complex combination of hydrocarbons obtained by treating a petroleum stock with hydrogen. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_9-C_{25} and a boiling point in the range of approximately 150ºC - 400ºC (302ºF - 752ºF).)	649-047-00-4	309-863-0	101316-57-8	
Residues (petroleum), catalytic reformer fractionator; Heavy fuel oil (A complex combination of hydrocarbons produced as the residual fraction from distillation of the catalytic reforming preparations. It consists predominantly of aromatic hydrocarbons with the number of carbon atoms predominantly C_{10}-C_{25} and a boiling point in the range of approximately 160ºC - 400ºC (320ºF - 725ºF). May contain 5% or more of 4- to 6-membered condensed ring aromatic hydrocarbons.)	649-048-00-X	265-069-3	64741-67-9	
Petroleum; Crude oil (A complex combination of aliphatic, alicyclic and aromatic hydrocarbons. It may also contain small amounts of nitrogen, oxygen and sulphur compounds. This category encompasses light, medium, and heavy petroleums, as well as the oils extended from tar sands. This group does not include hydrocarbonaceous materials requiring major chemical changes for them to be used in petroleum refinery feed stocks; such as crude shale oils, upgraded shale oils and liquid coal fuels.)	649-049-00-5	232-298-5	8002-05-9	
Gases (petroleum), catalytic cracked naphtha depropaniser overhead, C_3-rich, acid-free; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked hydrocarbons and treated to remove acidic impurities. It consists of hydrocarbons with the number of carbon atoms in the range of C_2-C_4 (predominantly C_3).)	649-062-00-6	270-755-0	68477-73-6	K

Gases (petroleum), catalytic cracker; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic cracking preparations.. It consists predominantly of aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-063-00-1	270-756-6	68477-74-7	K
Gases (petroleum), catalytic cracking, preparations rich in C_1-C_5; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic cracking preparations. It consists of aliphatic hydrocarbons with the number of carbon atoms in the range of C_1-C_6 (predominantly C_1-C_5).)	649-064-00-7	270-757-1	68477-75-8	K
Gases (petroleum), catalytic polymerised naphtha stabiliser overhead; preparations rich in C_2-C_4; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of catalytic polymerised naphtha. It consists of aliphatic hydrocarbons with the number of carbon atoms in the range of C_2-C_6 (predominantly C_2-C_4).)	649-065-00-2	270-758-7	68477-76-9	K
Gases (petroleum), catalytic reformer, rich in C_1-C_4; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic reforming preparations. It consists of hydrocarbons with the number of carbon atoms in the range of C_1-C_6 (predominantly C_1-C_4).)	649-066-00-8	270-760-8	68477-79-2	K
Gases (petroleum), C_{3-5}, olefinic-paraffinic alkylation feed; Petroleum gas (A complex combination of olefinic and paraffinic hydrocarbons with the number of carbon atoms in the range of predominantly C_3-C_5 which are used as alkylation feed. Room temperatures normally exceed the critical temperature of these combinations.)	649-067-00-3	270-765-5	68477-83-8	K
Gases (petroleum), rich in C_4; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic fractionation preparations.. It consists of aliphatic hydrocarbons with the number of carbon atoms in the range of C_3-C_5 (predominantly C_4).)	649-068-00-9	270-767-6	68477-85-0	K
Gases (petroleum), deethaniser overheads; Petroleum gas	649-069-00-4	270-768-1	68477-86-1	K

(A complex combination of hydrocarbons produced from distillation of the gas and gasoline fractions from the catalytic cracking process. It contains predominantly ethane and ethylene.)				
Gases (petroleum), deisobutaniser tower overheads; Petroleum gas (A complex combination of hydrocarbons produced by the atmospheric distillation of a butane-butylene fraction. It consists of aliphatic hydrocarbons with the number of carbon atoms predominantly C_3 and C_4.)	649-070-00-X	270-769-7	68477-87-2	K
Gases (petroleum), depropaniser dry, propene-rich; Petroleum gas (A complex combination of hydrocarbons produced by the distillation of preparations from the gas and gasoline fractions of a catalytic cracking process. It consists predominantly of propylene with some ethane and propane.)	649-071-00-5	270-772-3	68477-90-7	K
Gases (petroleum), depropaniser overheads; Petroleum gas (A complex combination of hydrocarbons produced by distillation of preparations from the gas and gasoline fractions of a catalytic cracking process. It consists of aliphatic hydrocarbons with the number of carbon atoms predominantly C_2-C_4.)	649-072-00-0	270-773-9	68477-91-8	K
Gases (petroleum), gas recovery plant depropaniser overheads; Petroleum gas (A complex combination of hydrocarbons obtained by fractionation of miscellaneous hydrocarbon streams. It consists of hydrocarbons with the number of carbon atoms in the range of C_1-C_4 (predominantly propane).)	649-073-00-6	270-777-0	68477-94-1	K
Gases (petroleum), Girbatol unit feed; Petroleum gas (A complex combination of hydrocarbons that is used as the feed into the Girbatol unit to remove hydrogen sulphide. It consists of aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_4.)	649-074-00-1	270-778-6	68477-95-2	K
Gases (petroleum), C_4-rich, hydrogen sulphide free, isomerised naphtha fractionator; Petroleum gas	649-075-00-7	270-782-8	68477-99-6	K
Tail gas (petroleum), catalytic cracked clarified oil and thermal cracked vacuum residue fractionation reflux drum; Petroleum gas (A complex combination of hydrocarbons	649-076-00-2	270-802-5	68478-21-7	K

obtained from fractionation of catalytic cracked clarified oil and thermal cracked vacuum residue. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)				
Tail gas (petroleum), catalytic cracked naphtha stabilisation absorber; Petroleum gas (A complex combination of hydrocarbons obtained from the stabilisation of catalytic cracked naphtha. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-077-00-8	270-803-0	68478-22-8	K
Tail gas (petroleum), catalytic cracker, catalytic reformer and hydrodesulphuriser combined fractionator; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation of preparations from catalytic cracking, catalytic reforming and hydrodesulphurising processes (to remove acidic impurities). It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-078-00-3	270-804-6	68478-24-0	K
Tail gas (petroleum), catalytic reformed naphtha fractionation stabiliser; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of catalytic reformed naphtha. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-079-00-9	270-806-7	68478-26-2	K
Tail gas (petroleum), saturate gas plant mixed stream, C_4-rich; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of straight-run naphtha, distillation tail gas and catalytic reformed naphtha stabiliser tail gas. It consists of hydrocarbons with the number of carbon atoms in the range of C_3-C_6 (predominantly butane and isobutane).)	649-080-00-4	270-813-5	68478-32-0	K
Tail gas (petroleum), saturate gas recovery plant, C_{1-2}-rich; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of distillate tail gas, straight-run naphtha, catalytic reformed naphtha stabiliser tail gas. It consists predominantly of hydrocarbons with the number of carbon atoms in the range of C_1-C_5 (predominantly methane and ethane).)	649-081-00-X	270-814-0	68478-33-1	K

Tail gas (petroleum), vacuum residues thermal cracker; Petroleum gas (A complex combination of hydrocarbons obtained from the thermal cracking of vacuum residues. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-082-00-5	270-815-6	68478-34-2	K
Hydrocarbons, C_{3-4}-rich, petroleum distillate; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation and condensation of crude oil. It consists of hydrocarbons with the number of carbon atoms in the range of C_3-C_5 (predominantly C_3 and C_4).)	649-083-00-0	270-990-9	68512-91-4	K
Gases (petroleum), full-range straight-run naphtha dehexaniser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of the full-range straight-run naphtha. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_6.)	649-084-00-6	271-000-8	68513-15-5	K
Gases (petroleum), hydrocracking depropaniser off, hydrocarbon-rich preparations; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of hydrocracking preparations. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4. May contain small amounts of hydrogen and hydrogen sulphide.)	649-085-00-1	271-001-3	68513-16-6	K
Gases (petroleum), light straight-run naphtha stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained by the stabilisation of light straight-run naphtha. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_4.)	649-086-00-7	271-002-9	68513-17-7	K
Residues (petroleum), alkylation splitter, C_4-rich; Petroleum gas (A complex residuum from the distillation of streams from various refinery operations. It consists of hydrocarbons with the number of carbon atoms C_4 and C_5 (predominantly butane) and a boiling point in the range of approximately –11.7ºC to +27.8ºC (11ºF - 82ºF).	649-087-00-2	271-010-2	68513-66-6	K
Hydrocarbons, C_{1-4}, sweetened; Petroleum gas (A complex combination of hydrocarbons	2649-089-00-3	271-038-5	68514-36-3	K

obtained by removing mercaptans or acidic impurities from hydrocarbons. It consists of hydrocarbons with the number of carbon atoms predominantly C_1-C_4 and a boiling point in the range of approximately –164ºC to –0.5ºC (–263ºF - 31ºF).)				
Hydrocarbons, C_{1-3}; Petroleum gas (A complex combination of hydrocarbons with the number of carbon atoms predominantly C_1-C_3 and a boiling point in the range of approximately –164ºC to –42ºC (–263ºF to –31ºF).)	649-090-00-9	271-259-7	68527-16-2	K
Hydrocarbons, C_{1-4}, debutaniser fraction; Petroleum gas	649-091-00-4	271-261-8	68527-19-5	K
Gases (petroleum), C_{1-5}, wet; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of crude oil and/or the cracking of gas oil. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-092-00-X	271-624-0	68602-83-5	K
Hydrocarbons, C_{2-4}; Petroleum gas	649-093-00-5	271-734-9	68606-25-7	K
Hydrocarbons, C_3; Petroleum gas	649-094-00-0	271-735-4	68606-26-8	K
Gases (petroleum), alkylation feed; Petroleum gas (A complex combination of hydrocarbons produced by the catalytic cracking of gas oil. It consists of hydrocarbons with the number of carbon atoms predominantly C_3 and C_4.)	649-095-00-6	271-737-5	68606-27-9	K
Gases (petroleum), depropaniser bottoms fractionation off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of depropaniser bottoms. It consists predominantly of butane, isobutane and butadiene.)	649-096-00-1	271-742-2	68606-34-8	K
Gases (petroleum), refinery blend; Petroleum gas (A complex combination obtained from various processes. It consists of hydrogen, hydrogen sulphide and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-097-00-7	272-183-7	68783-07-3	K
Gases (petroleum), catalytic cracking; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic cracking preparations. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_3-C_5.)	649-098-00-2	272-203-4	68783-64-2	K

Gases (petroleum), C_{2-4}, sweetened; Petroleum gas (A complex combination of hydrocarbons obtained by subjecting a petroleum distillate to a sweetening process to convert mercaptans or to remove acidic impurities. It consists predominantly of saturated and unsaturated hydrocarbons with the number of carbon atoms predominantly C_2-C_4 and a boiling point in the range of approximately –51°C to –34°C (–60°F to –30°F).)	649-099-00-8	272-205-5	68783-65-3	K
Gases (petroleum), crude oil fractionation off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of crude oil. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1 to C_5.)	649-100-00-1	272-871-7	68918-99-0	K
Gases (petroleum), dehexaniser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of combined naphtha streams. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_4 and C_5.)	649-101-00-7	272-872-2	68919-00-6	K
Gases (petroleum), light straight run gasoline fractionation stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of light straight-run gasoline. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_5.)	649-102-00-2	272-878-5	68919-05-1	K
Gases (petroleum), naphtha unifiner desulphurisation stripper off; Petroleum gas (A complex combination of hydrocarbons produced by a naphtha unifiner desulphurisation process and stripped from the naphtha preparation. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_4.)	649-103-00-8	272-879-0	68919-06-2	K
Gases (petroleum), straight-run naphtha catalytic reforming off; Petroleum gas (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and fractionation of the total effluent. It consists of methane, ethane, and propane.)	649-104-00-3	272-882-7	68919-09-5	K
Gases (petroleum), fluidised catalytic cracker	649-105-00-9	272-893-7	68919-20-0	K

splitter overheads; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of splitter preparations. It consists predominantly of C_3 hydrocarbons.)				
Gases (petroleum), straight-run stabiliser off; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation of the liquid from the first tower used in the distillation of crude oil. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_4.)	649-106-00-4	272-883-2	68919-10-8	K
Gases (petroleum), catalytic cracked naphtha debutaniser; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of catalytic cracked naphtha. It consists of hydrocarbons with the number of carbon atoms predominantly C_1-C_4.)	649-107-00-X	273-169-3	68952-76-1	K
Tail gas (petroleum), catalytic cracked distillate and naphtha stabiliser; Petroleum gas (A complex combination of hydrocarbons obtained by the fractionation of catalytic cracked naphtha and distillate. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-108-00-5	273-170-9	68952-77-2	K
Tail gas (petroleum), thermal-cracked distillate, gas oil and naphtha absorber; Petroleum gas (A complex combination of hydrocarbons obtained from the separation of thermal-cracked distillates, naphtha and gas oil. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly C_1-C_6.)	649-109-00-0	273-175-6	68952-81-8	K
Tail gas (petroleum), thermal cracked hydrocarbon fractionation stabiliser, petroleum coking; Petroleum gas (A complex combination of hydrocarbons obtained from the fractionation stabilisation of thermal cracked hydrocarbons from a petroleum coking process. It consists of hydrocarbons with the number of carbon atoms predominantly C_1-C_6.)	649-110-00-6	273-176-1	68952-82-9	K
Tail gas (petroleum), light steam-cracked, butadiene concentrate; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of thermal cracking preparations. It consists of hydrocarbons with the number of carbon atoms predominantly C_4.)	649-111-00-1	273-265-5	68955-28-2	K

Gases (petroleum), straight-run naphtha catalytic reformer stabiliser overhead; Petroleum gas (A complex combination of hydrocarbons obtained by the catalytic reforming of straight-run naphtha and the fractionation of the total effluent. It consists of saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_2-C_4.)	649-112-00-7	273-270-2	68955-34-0	K
Hydrocarbons, C_4; Petroleum gas	649-113-00-2	289-339-5	87741-01-3	K
Alkanes, C_{1-4}, C_3-rich; Petroleum gas	649-114-00-8	292-456-4	90622-55-2	K
Gases (petroleum), steam-cracker, C_3-rich; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of steam cracking preparations. It consists predominantly of propylene with some propane and has a boiling point in the range of approximately –70°C to 0°C (–94°F to 32°F).)	649-115-00-3	295-404-9	92045-22-2	K
Hydrocarbons, C_4, steam-cracker distillate; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of steam cracking preparations. It consists predominantly of hydrocarbons with the number of carbon atoms C_4, predominantly of 1-butene and 2-butene. Contains also butane and isobutene with a boiling point in the range of approximately –12°C to 5°C (10.4°F to 41°F).)	649-116-00-9	295-405-4	92045-23-3	K
Petroleum gases, liquefied, sweetened, C_4 fraction; Petroleum gas (A complex combination of hydrocarbons obtained by subjecting a liquefied petroleum gas mix to a sweetening process to oxidise mercaptans or to remove acidic impurities. It consists predominantly of saturated and unsaturated hydrocarbons with the number of carbon atoms predominantly C_4.)	649-117-00-4	295-463-0	92045-80-2	K
Hydrocarbons, C_4, 1,3-butadiene- and isobutene-free; Petroleum gas	649-118-00-X	306-004-1	95465-89-7	K
Raffinates (petroleum), steam-cracked C_4 fraction, cuprous ammonium acetate extraction, C_{3-5} saturated and unsaturated hydrocarbons, butadiene-free; Petroleum gas	649-119-00-5	307-769-4	97722-19-5	K
Gases (petroleum), amine system feed; Refinery gas (The feed gas to the amine system for removal of hydrogen sulphide. It consists primarily of hydrogen. May also contain carbon monoxide,	649-120-00-0	270-746-1	68477-65-6	K

carbon dioxide, hydrogen sulphide and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)				
Gases (petroleum), benzene unit hydrodesulphuriser off; Refinery gas (Off gases produced by the benzene unit. It consists primarily of hydrogen. May also contain carbon monoxide and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6, including benzene.)	649-121-00-6	270-747-7	68477-66-7	K
Gases (petroleum), benzene unit recycle, hydrogen-rich; Refinery gas (A complex combination of hydrocarbons obtained by recycling the gases of the benzene unit. It consists primarily of hydrogen with impurity of various other substances (carbon monoxide and hydrocarbons with the number of carbon atoms in the range of C_1-C_6) in small amounts.)	649-122-00-1	270-748-2	68477-67-8	K
Gases (petroleum), blend oil, hydrogen-nitrogen-rich; Refinery gas (A complex combination of hydrocarbons obtained by the distillation of a blend oil. It consists primarily of hydrogen and nitrogen with impurity of various other substances (carbon monoxide, carbon dioxide and aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_5) in small amounts.)	649-123-00-7	270-749-8	68477-68-9	K
Gases (petroleum), catalytic reformed naphtha stripper overheads; Refinery gas (A complex combination of hydrocarbons obtained from stabilisation of catalytic reformed naphtha. It consists of hydrogen and saturated hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-124-00-2	270-759-2	68477-77-0	K
Gases (petroleum), C_{6-8} catalytic reformer recycle; Refinery gas (A complex combination of hydrocarbons produced by distillation of preparations from catalytic reforming of C_6-C_8 feed and recycled to conserve hydrogen. It consists primarily of hydrogen. May contain various small amounts of carbon monoxide, carbon dioxide, nitrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-125-00-8	270-761-3	68477-80-5	K
Gases (petroleum), C_{6-8} catalytic reformer; Refinery gas (A complex combination of hydrocarbons	649-126-00-3	270-762-9	68477-81-6	K

produced by distillation of preparations from catalytic reforming of C_6-C_8 feed. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)				
Gases (petroleum), C_{6-8} catalytic reformer recycle, hydrogen-rich; Refinery gas	649-127-00-9	270-763-4	68477-82-7	K
Gases (petroleum), C_2-return stream; Refinery gas (A complex combination of hydrocarbons obtained by the extraction of hydrogen from a gas stream, which consists primarily of hydrogen with small amounts of nitrogen, carbon monoxide, methane, ethane, and ethylene. It contains predominantly hydrocarbons such as methane, ethane and ethylene with small amounts of hydrogen, nitrogen and carbon monoxide.)	649-128-00-4	270-766-0	68477-84-9	K
Gases (petroleum), dry sour, gas-concentration-unit-off; Refinery gas (The complex combination of dry gases from a gas concentration unit. It consists of hydrogen, hydrogen sulphide and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_3.)	649-129-00-X	270-774-4	68477-92-9	K
Gases (petroleum), gas concentration reabsorber distillation; Refinery gas (A complex combination of hydrocarbons produced by distillation of preparations from combined gas streams in a gas concentration reabsorber. It consists predominantly of hydrogen, carbon monoxide, carbon dioxide, nitrogen, hydrogen sulphide and hydrocarbons with the number of carbon atoms in the range of C_1-C_3.)	649-130-00-5	270-776-5	68477-93-0	K
Gases (petroleum), hydrogen absorber off; Refinery gas (A complex combination obtained by absorbing hydrogen from a hydrogen rich stream. It consists of hydrogen, carbon monoxide, nitrogen, and methane with small amounts of C_2 hydrocarbons.)	649-131-00-0	270-779-1	68477-96-3	K
Gases (petroleum), hydrogen-rich; Refinery gas (A complex combination of gaseous substances separated from hydrocarbon-containing gases by chilling. It consists primarily of hydrogen with various small amounts of carbon monoxide, nitrogen, methane, and C_2 hydrocarbons.)	649-132-00-6	270-780-7	68477-97-4	K

Gases (petroleum), hydrotreater blend oil recycle, hydrogen-nitrogen-rich; Refinery gas (A complex combination obtained from recycled hydrotreated blend oil. It consists primarily of hydrogen and nitrogen with various small amounts of carbon monoxide, carbon dioxide and C_1-C_5 hydrocarbons.)	649-133-00-1	270-781-2	68477-98-5	K
Gases (petroleum), recycle, hydrogen-rich; Refinery gas (A complex combination obtained from recycled reactor gases. It consists primarily of hydrogen with various small amounts of carbon monoxide, nitrogen, hydrogen sulphide and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_5.)	649-134-00-7	270-783-3	68478-00-2	K
Gases (petroleum), hydrogen-rich, reformer make-up; Refinery gas (A complex combination obtained from the reformers. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_5.)	649-135-00-2	270-784-9	68478-01-3	K
Gases (petroleum), reforming hydrotreater; Refinery gas (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen, methane and ethane with various small amounts of hydrogen sulphide and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range C_3-C_5.)	649-136-00-8	270-785-4	68478-02-4	K
Gases (petroleum), reforming hydrotreater, hydrogen-methane-rich; Refinery gas (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen and methane with various small amounts of carbon monoxide and dioxide, nitrogen and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_5.)	649-137-00-3	270-787-5	68478-03-5	K
Gases (petroleum), reforming hydrotreater make-up, hydrogen-rich; Refinery gas (A complex combination obtained from the reforming hydrotreating process. It consists primarily of hydrogen with various small amounts of carbon monoxide and aliphatic hydrocarbons with the number of carbon atoms predominantly C_1-C_5.)	649-138-00-9	270-788-0	68478-04-6	K
Gases (petroleum), thermal cracking distillation;	649-139-00-4	270-789-6	68478-05-7	K

Refinery gas (A complex combination obtained by the distillation of thermal cracking preparations. It consists of hydrogen, carbon monoxide and dioxide, hydrogen sulphide and hydrocarbons with the number of carbon atoms predominantly C_1-C_6.)				
Tail gas (petroleum), catalytic cracker refractionation absorber; Refinery gas (A complex combination of hydrocarbons obtained by the refractionation of catalytic cracking preparations. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_3.)	649-140-00-X	270-805-1	68478-25-1	K
Tail gas (petroleum), catalytic reformed naphtha separator; Refinery gas (A complex combination of hydrocarbons obtained from the catalytic reforming of straight-run naphtha. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-141-00-5	270-807-2	68478-27-3	K
Tail gas (petroleum), catalytic reformed naphtha stabiliser; Refinery gas (A complex combination of hydrocarbons obtained from stabilisation of catalytic reformed naphtha. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-142-00-0	270-808-8	68478-28-4	K
Tail gas (petroleum), cracked distillate hydrotreater separator; Refinery gas (A complex combination of hydrocarbons obtained by treating cracked distillates with hydrogen in the presence of a catalyst. It consists of hydrogen and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-143-00-6	270-809-3	68478-29-5	K
Tail gas (petroleum), hydrodesulphurised straight-run naphtha separator; Refinery gas (A complex combination of hydrocarbons obtained from hydrodesulphurisation of straight-run naphtha. It consists of hydrogen and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-144-00-1	270-810-9	68478-30-8	K
Gases (petroleum), catalytic reformed straight-run naphtha stabiliser overheads; Refinery gas A complex combination of hydrocarbons obtained from the catalytic reforming of straight-	649-145-00-7	270-999-8	68513-14-4	K

run naphtha followed by fractionation of the total effluent. It consists of hydrogen, methane, ethane and propane.)				
Gases (petroleum), reformer effluent high-pressure flash drum off; Refinery gas (A complex combination produced by the high-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)	649-146-00-2	271-003-4	68513-18-8	K
Gases (petroleum), reformer effluent low-pressure flash drum off; Refinery gas (A complex combination produced by low-pressure flashing of the effluent from the reforming reactor. It consists primarily of hydrogen with various small amounts of methane, ethane, and propane.)	649-147-00-8	271-005-5	68513-19-9	K
Gases (petroleum), oil refinery gas distillation off; Refinery gas (A complex combination separated by distillation of a gas stream containing hydrogen, carbon monoxide, carbon dioxide and hydrocarbons with the number of carbon atoms in the range of C_1-C_6 or obtained by cracking ethane and propane. It consists of hydrocarbons with the number of carbon atoms predominantly C_1 and C_2, as well as nitrogen, hydrogen and carbon monoxide.)	649-148-00-3	271-258-1	68527-15-1	K
Gases (petroleum), benzene unit hydrotreater depentaniser overheads; Refinery gas (A complex combination produced by treating the feed from the benzene unit with hydrogen in the presence of a catalyst followed by depentanising. It consists primarily of hydrogen, ethane and propane with various small amounts of nitrogen, carbon monoxide, carbon dioxide, as well as hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6. It may contain trace amounts of benzene.)	649-149-00-9	271-623-5	68602-82-4	K
Gases (petroleum), secondary absorber off, fluidised catalytic cracker overheads fractionator; Refinery gas (A complex combination produced by the fractionation of the overhead preparations from the catalytic cracking process in the fluidised catalytic cracker. It consists of hydrogen, nitrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-	649-150-00-4	271-625-6	68602-84-6	K

C_3.)				
Petroleum preparations, refinery gases; Refinery gas (A complex combination which consists primarily of hydrogen with various small amounts of methane, ethane and propane.)	649-151-00-X	271-750-6	68607-11-4	K
Gases (petroleum), hydrocracking low-pressure separator; Refinery gas (A complex combination obtained by the liquid-vapour separation of the hydrocracking process reactor effluent. It consists of hydrogen and saturated hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_3.)	649-152-00-5	272-182-1	68783-06-2	K
Gases (petroleum), refinery; Refinery gas (A complex combination obtained from various petroleum refining operations. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_3.)	649-153-00-0	272-338-9	68814-67-5	K
Gases (petroleum), platformer preparations separator off; Refinery gas (A complex combination obtained from the chemical reforming of naphthenes to aromatics. It consists of hydrogen and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_4.)	649-154-00-6	272-343-6	68814-90-4	K
Gases (petroleum), hydrotreated sour kerosene depentaniser stabiliser off; Refinery gas (The complex combination obtained from the depentaniser stabilisation of hydrotreated kerosene. It consists primarily of hydrogen, ethane, and propane with various small amounts of nitrogen, hydrogen sulphide, carbon monoxide and hydrocarbons with the number of carbon atoms predominantly in the range of C_4-C_5.)	649-155-00-1	272-775-5	68911-58-0	K
Gases (petroleum), hydrotreated sour kerosene flash drum; Refinery gas (A complex combination obtained from the flash drum of the unit treating sour kerosene with hydrogen in the presence of a catalyst. It consists primarily of hydrogen with various small amounts of nitrogen, carbon monoxide and hydrocarbons with the number of carbon atoms predominantly in the range of C_2-C_5.)	649-156-00-7	272-776-0	68911-59-1	K
Gases (petroleum), distillate unifiner desulphurisation stripper off; Refinery gas	649-157-00-2	272-873-8	68919-01-7	K

(A complex combination stripped from the liquid preparation of the unifiner desulphurisation process. It consists of hydrogen sulphide, methane, ethane ,and propane.)				
Gases (petroleum), fluidised catalytic cracker fractionation off; Refinery gas (A complex combination produced by the fractionation of the overhead preparation of the fluidised catalytic cracking process. It consists of hydrogen, hydrogen sulphide, nitrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-158-00-8	272-874-3	68919-02-8	K
Gases (petroleum), fluidised catalytic cracker scrubbing secondary absorber off; Refinery gas (A complex combination produced by scrubbing the overhead gas from the fluidised catalytic cracker. It consists of hydrogen, nitrogen, methane, ethane and propane.)	649-159-00-3	272-875-9	68919-03-9	K
Gases (petroleum), heavy distillate hydrotreater desulphurisation stripper off; Refinery gas (A complex combination stripped from the liquid preparation of the heavy distillate hydrotreater desulphurisation process. It consists of hydrogen, hydrogen sulphide and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-160-00-9	272-876-4	68919-04-0	K
Gases (petroleum), platformer stabiliser off, light ends fractionation; Refinery gas (A complex combination obtained by the fractionation of the light ends of the platinum reactors of the platformer unit. It consists of hydrogen, methane, ethane and propane.)	649-161-00-4	272-880-6	68919-07-3	K
Gases (petroleum), pre-flash tower off, crude distillation; Refinery gas (A complex combination produced from the first tower used in the distillation of crude oil. It consists of hydrogen and saturated aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-162-00-X	272-881-1	68919-08-4	K
Gases (petroleum), tar stripper off; Refinery gas (A complex combination obtained by the fractionation of reduced crude oil. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-163-00-5	272-884-8	68919-11-9	K
Gases (petroleum), unifiner stripper off; Refinery gas (A combination of hydrogen and methane	649-164-00-0	272-885-3	68919-12-0	K

obtained by fractionation of the preparations from the unifiner unit.)				
Tail gas (petroleum), catalytic hydrodesulphurised naphtha separator; Refinery gas (A complex combination of hydrocarbons obtained by the hydrodesulphurisation of naphtha.. It consists of hydrogen, methane, ethane and propane.)	649-165-00-6	273-173-5	68952-79-4	K
Tail gas (petroleum), straight-run naphtha hydrodesulphuriser; Refinery gas (A complex combination obtained from the hydrodesulphurisation of straight-run naphtha. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-166-00-1	273-174-0	68952-80-7	K
Gases (petroleum), sponge absorber off fluidised catalytic cracker and gas oil desulphuriser overhead fractionation; Refinery gas (A complex combination obtained by the fractionation of preparations from the fluidised catalytic cracker and gas oil desulphuriser overheads. It consists of hydrogen and hydrocarbons with the number of carbon atoms predominantly C_1-C_4.)	649-167-00-7	273-269-7	68955-33-9	K
Gases (petroleum), crude distillation and catalytic cracking; Refinery gas (A complex combination produced by crude distillation and catalytic cracking processes. It consists of hydrogen, hydrogen sulphide, nitrogen, carbon monoxide, as well as paraffinic and olefinic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-168-00-2	273-563-5	68989-88-8	K
Gases (petroleum), gas oil diethanolamine scrubber off; Refinery gas (A complex combination produced by desulphurisation of gas oils with diethanolamine. It consists predominantly of hydrogen, hydrogen sulphide and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-169-00-8	295-397-2	92045-15-3	K
Gases (petroleum), gas oil hydrodesulphurisation effluent; Refinery gas (A complex combination obtained by separation of the liquid phase from the effluent from the hydrogenation reaction. It consists predominantly of hydrogen, hydrogen sulphide	649-170-00-3	295-398-8	92045-16-4	K

and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_3.)				
Gases (petroleum), gas oil hydrodesulphurisation purge; Refinery gas (A complex combination of gases obtained from the reformer and from the purges from the hydrogenation reactor. It consists predominantly of hydrogen and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-171-00-9	295-399-3	92045-17-5	K
Gases (petroleum), hydrogenator effluent flash drum off; Refinery gas (A complex combination of gases obtained from flash of the effluents after the hydrogenation reaction. It consists predominantly of hydrogen and aliphatic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-172-00-4	295-400-7	92045-18-6	K
Gases (petroleum), naphtha steam cracking high-pressure residual; Refinery gas (A complex combination obtained as a mixture of the non-condensable portions from the preparation of a naphtha steam cracking process and residual gases obtained during the preparation of subsequent preparations. It consists predominantly of hydrogen, as well as paraffinic and olefinic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5 with which natural gas may also be mixed.)	649-173-00-X	295-401-2	92045-19-7	K
Gases (petroleum), residue viscosity reduction preparations; Refinery gas (A complex combination obtained from viscosity reduction of residues in a furnace. It consists predominantly of hydrogen sulphide, as well as paraffinic and olefinic hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-174-00-5	295-402-8	92045-20-0	K
Foots oil (petroleum), acid-treated; Foots oil (A complex combination of hydrocarbons obtained by treatment of Foot's oil with sulphuric acid. It consists predominantly of branched-chain hydrocarbons with the number of carbon atoms predominantly in the range of C_{20}-C_{50}.)	649-175-00-0	300-225-7	93924-31-3	L
Foots oil (petroleum), clay-treated; Foots oil A complex combination of hydrocarbons obtained by treatment of Foot's oil with natural	649-176-00-6	300-226-2	93924-32-4	L

or modified clay in either a contacting or percolation process to remove the trace amounts of polar compounds and impurities present. It consists predominantly of branched-chain hydrocarbons with the number of carbon atoms predominantly in the range of C_{20}-C_{50}.)				
Gases (petroleum), C_{1-4}; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of crude oil cracking preparations. It consists of hydrocarbons with the number of carbon atoms in the range of C_3-C_4, predominantly of propane and propylene, and a boiling point in the range of approximately –51ºC to – 1ºC (–60ºF to 30ºF).)	649-177-00-1	268-629-5	68131-75-9	K
Tail gas (petroleum), catalytic cracked distillate and catalytic cracked naphtha fractionation absorber; Petroleum gas (A complex combination of hydrocarbons obtained from the distillation of the preparations from catalytic cracked distillates and catalytic cracked naphtha. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-178-00-7	269-617-2	68307-98-2	K
Tail gas (petroleum), catalytic polymerisation naphtha fractionation stabiliser; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation stabilisation preparations polymerisation of naphtha. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-179-00-2	269-618-8	68307-99-3	K
Tail gas (petroleum), catalytic reformed naphtha fractionation stabiliser, hydrogen sulphide-free; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation stabilisation of catalytic reformed naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-180-00-8	269-619-3	68308-00-9	K
Tail gas (petroleum), cracked distillate hydrotreater stripper; Petroleum gas (A complex combination of hydrocarbons obtained by treating thermal cracked distillates with hydrogen in the presence of a catalyst. It consists predominantly of saturated hydrocarbons with the number of carbon atoms	649-181-00-3	269-620-9	68308-01-0	K

predominantly in the range of C_1-C_6)				
Tail gas (petroleum), straight-run distillate hydrodesulphuriser, hydrogen sulphide-free; Petroleum gas (A complex combination of hydrocarbons obtained from catalytic hydrodesulphurisation of straight run distillates and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-182-00-9	269-630-3	68308-10-1	K
Tail gas (petroleum), gas oil catalytic cracking absorber; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of gas oil catalytic cracking preparations. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-183-00-4	269-623-5	68308-03-2	K
Tail gas (petroleum), gas recovery plant; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of preparations from miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-184-00-X	269-624-0	68308-04-3	K
Tail gas (petroleum), gas recovery plant deethaniser; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of preparations from miscellaneous hydrocarbon streams. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-185-00-5	269-625-6	68308-05-4	K
Tail gas (petroleum), hydrodesulphurised distillate and hydrodesulphurised naphtha fractionator, acid-free; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation of hydrodesulphurised naphtha and distillate hydrocarbon streams and treated to remove acidic impurities. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-186-00-0	269-626-1	68308-06-5	K
Tail gas (petroleum), hydrodesulphurised vacuum gas oil stripper, hydrogen sulphide-free; Petroleum gas (A complex combination of hydrocarbons	649-187-00-6	269-627-7	68308-07-6	K

obtained from stripping stabilisation of catalytic hydrodesulphurised vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)				
Tail gas (petroleum), light straight-run naphtha stabiliser, hydrogen sulphide-free; Petroleum gas (A complex combination of hydrocarbons obtained from fractionation stabilisation of light straight-run naphtha and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_5.)	649-188-00-1	269-629-8	68308-09-8	K
Tail gas (petroleum), propane-propylene alkylation feed preparation deethaniser; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of propane and propylene reaction preparations. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_4.)	649-189-00-7	269-631-9	68308-11-2	K
Tail gas (petroleum), vacuum gas oil hydrodesulphuriser, hydrogen sulphide-free; Petroleum gas (A complex combination of hydrocarbons obtained from catalytic hydrodesulphurisation of vacuum gas oil and from which hydrogen sulphide has been removed by amine treatment. It consists predominantly of hydrocarbons with the number of carbon atoms predominantly in the range of C_1-C_6.)	649-190-00-2	269-632-4	68308-12-3	K
Gases (petroleum), catalytic cracked overheads; Petroleum gas (A complex combination of hydrocarbons obtained by the distillation of catalytic cracking preparations. It consists of hydrocarbons with the number of carbon atoms predominantly in the range of C_3-C_5. The boiling point is in the range of approximately –48ºC to 32ºC (–54ºF to 90ºF).)	649-191-00-8	270-071-2	68409-99-4	K
Alkanes, C_{1-2}; Petroleum gas	649-193-00-9	270-651-5	68475-57-0	K
Alkanes, C_{2-3}; Petroleum gas	649-194-00-4	270-652-0	68475-58-1	K
Alkanes, C_{3-4}; Petroleum gas	649-195-00-X	270-653-6	68475-59-2	K
Alkanes, C_{4-5}; Petroleum gas	649-196-00-5	270-654-1	68475-60-5	K
Fuel gases; Petroleum gas	649-197-00-0	270-667-2	68476-26-6	K