

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 24/08/2015

Revision date:

Version: 1.0

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

1.1. Product identifier

Product form : Mixture
Trade name : Pyromark® High Temperature Paint 1200 Flat Black

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Paint.

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

LA-CO Industries Europe S.A.S.
Parc Industriel de la Plaine de
l'Ain - Allée des Combes.
01150.BLYES.France.
Phone: +33 (0)4 74 46 23 23
Fax: +33 (0)4 74 46 23 29
E-mail: info@eu.laco.com
Web: http://www.markal.com



1.4. Emergency telephone number

Emergency number : 24-hour emergency: CHEMTREC- U.S. : 1-800-424-9300 International: +1-703-527-3887

EU Member State	Officieel adviesorgaan	Adres	Noodnummer
AUSTRIA	Vergiftungsinformationszentrale (Poisons Information Centre)	Allgemeines Krankenhaus Waehringer Geurtel 18-20 1090 Wien	+43 1 406 43 43
BELARUS	The Belarus Republican Poisons Centre	Kizhevatova str. 58 220115 Minsk	+375 (0)17 201 9158
BELGIUM	Centre Anti-Poisons/Antigifcentrum c/o Hôpital Central de la Base - Reine Astrid	Rue Bruyn 1 B -1120 Bruxelles/Brussel	+32 70 245 245
BULGARIA	Национален токсикологичен информационен център National Clinical Toxicology Centre, Emergency Medical Institute "Pirogov"	21 Tottleben Boulevard 1606 SOFIA	+359 2 9154 409
CROATIA	Poisons Control Centre Institute of Medical Research & Occupational Health	Ksaverska Cesta 2 P.O. Box 291 HR-10000 Zagreb	+385 1 234 8342
CZECH REPUBLIC	Toxikologické informační středisko Clinic For Occupational Medicine, 1st Medical Faculty, Charles University	Na Bojišti 1 120 00 Praha 2	+42 2 2491 9293 +42 2 2491 5402
DENMARK	Gifflinjen Bispebjerg Hospital	Bispebjerg Bakke 23, 60, 1 DK-2400 København NV	+45 82 12 12 12 +45 35 31 55 55
ESTONIA	Mürgistusteabekeskus	Gonsiori 29 15027 Tallinn	+372 626 93 90
FINLAND	Myrkytystietokeskus	P.O.B 340 (Haartmaninkatu 4) HUS SF - 00029 Helsinki	+358 9 471 977
FRANCE	ORFILA		+33 1 45 42 59 59
GERMANY	Berliner Betrieb für Zentrale Gesundheitliche Aufgaben	Oranienburger Strasse 285 13437 Berlin	+49 30 19240
GERMANY	Informations und Beratungszentrum für Vergiftungsfälle	Kirrberger Straße, Gebäude 9 D-66421 Homburg/Saar	+49 6841 19240
GERMANY	Beratungstelle bei Vergiftungen, Klinische Toxikologie und Beratungsstelle bei Vergiftungen	Langenbeckstrasse 1 55131 Mainz	+49 6131 19240
GREECE	Poisons Information Centre	11527 Athens	+30 10 779 3777
HUNGARY	Országos Kémiai Biztonsági Intézet (National Institute of Chemical Safety) Egészségügyi Toxikológiai Tájékoztató Szolgálat (Health Toxicological Information Service)	1437 Budapest PO Box 839 1097 Budapest, Nagyvárad tér 2	+36 80 20 11 99
ICELAND	Eitrunarmiðstöðin	Eitrunarmiðstöðin 108 Reykjavik	+354 543 22 22
IRELAND	National Poisons Information Centre	Beaumont Hospital PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2166

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

LATVIA	Valsts Toksikoloģijas centra Saindēšanās un zāļu informācijas centrs	2 Hipocrate Street LV 1038 Riga	+371 67 04 24 73
LITHUANIA	Apsinuodijimų kontrolės ir informacijos biuras	Siltnamiu 29 2043 Vilnius	+370 5 236 20 52/+370 687 53 378
MALTA	Medicines & Poisons Info Office	Mater Dei Hospital, Msida MSD 2090 Malta	25450000
NETHERLANDS	Nationaal Vergiftigingen Informatie Centrum National Institute for Public Health and the Environment, NB this service is only available to health professionals	Huispostnummer B.00.118, PO Box 85500 3508 GA Utrecht	+31 30 274 88 88
PORTUGAL	Centro de Informação Antivenenos Instituto Nacional de Emergência Médica (INEM)	Rua Almirante Barroso, 36 1000-013 Lisboa	808 250 143 (for use only in Portugal), +351 21 330 3284
ROMANIA	Biroul pentru Regulamentul Sanitar International si Informare Toxicologica	Str. Dr. Leonte Anastasievici Nr.1-3, Sector 5 50463 Bucuresti	+40 21 318 36 06
SLOVAKIA	Národné toxikologické informačné centrum University Hospital Bratislava	Limbová 5 833 05 Bratislava	+421 2 54 77 4 166
SPAIN	Servicio de Información Toxicológica Instituto Nacional de Toxicología, Departamento de Madrid	Calle Luis Cabrera 9 E-28002 Madrid	+34 91 562 04 20
SWEDEN	Giftinformationscentralen Swedish Poisons Information Centre, Karolinska Hospital	Box 60 500 SE-171 76 Stockholm	+46 8 33 12 31 (International) 112 (National)
SWITZERLAND	Centre Suisse d'Information Toxicologique	Freiestrasse 16 Postfach CH-8028 Zurich	+41 44 251 51 51 (International) 145 (National)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flam. Liq. 2	H225
Acute Tox. 4 (Inhalation:dust,mist)	H332
Skin Irrit. 2	H315
Repr. 2	H361
STOT SE 3	H336
STOT RE 2	H373
Aquatic Chronic 3	H412

Full text of classification categories and H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: 1,2,4-trimethylbenzene, Xylene, ethylbenzene, Toluene, 4-methylpentan-2-one, Isopropanol

Hazard statements (CLP)

: H225 - Highly flammable liquid and vapour
H315 - Causes skin irritation
H332 - Harmful if inhaled
H336 - May cause drowsiness or dizziness
H361 - Suspected of damaging fertility or the unborn child
H373 - May cause damage to organs through prolonged or repeated exposure
H412 - Harmful to aquatic life with long lasting effects

Precautionary statements (CLP)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P233 - Keep container tightly closed
P240 - Ground/bond container and receiving equipment
P241 - Use explosion-proof electrical, lighting, ventilating equipment
P260 - Do not breathe mist, vapours
P264 - Wash hands thoroughly after handling

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear eye protection, protective gloves
P302+P352 - IF ON SKIN: Wash with plenty of water
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P308+P313 - IF exposed or concerned: Get medical advice/attention
P312 - Call a poison center or doctor if you feel unwell
P321 - Specific treatment (see First aid measures on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention
P362+P364 - Take off contaminated clothing and wash it before reuse
P370+P378 - In case of fire: Use carbon dioxide (CO₂), dry extinguishing powder, foam to extinguish
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up
P501 - Dispose of contents/container to an authorised waste collection point

Unknown acute toxicity (CLP: Classification, Labelling, Packaging.) - SDS : 0.16% of the mixture consists of ingredient(s) of unknown acute oral toxicity
0.16% of the mixture consists of ingredient(s) of unknown acute dermal toxicity
0.16% percent of the mixture consists of ingredient(s) of unknown acute inhalation (dust/mist) toxicity

2.3. Other hazards

PBT: not yet assessed
vPvB: not yet assessed

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Comments

: Only component with health hazards above the applicable thresholds and/or Exposure Limit values are shown.

Exact concentrations are withheld as trade secret.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Toluene	(CAS No) 108-88-3 (EC no) 203-625-9 (EC index no) 601-021-00-3	25 – 35	Flam. Liq. 2, H225 Repr. 2, H361d Asp. Tox. 1, H304 STOT RE 2, H373 Skin Irrit. 2, H315 STOT SE 3, H336
Xylene	(CAS No) 1330-20-7 (EC no) 215-535-7 (EC index no) 601-022-00-9	20 – 30	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315
ethylbenzene	(CAS No) 100-41-4 (EC no) 202-849-4 (EC index no) 601-023-00-4	5 – 10	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 STOT RE 2, H373 Asp. Tox. 1, H304
Carbon black	(CAS No) 1333-86-4 (EC no) 215-609-9	1 – 5	Carc. 2, H351
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%)	(CAS No) 64742-95-6 (EC no) 265-199-0 (EC index no) 649-356-00-4	1 – 5	Asp. Tox. 1, H304
1,2,4-trimethylbenzene	(CAS No) 95-63-6 (EC no) 202-436-9 (EC index no) 601-043-00-3	0.1 – 2	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
Colloidal Silicon dioxide	(CAS No) 112945-52-5 (EC no) 231-545-4	0.1 – 1	Not classified
Silicon dioxide (cristobalite)	(CAS No) 14808-60-7 (EC no) 238-878-4	0.1 – 1	Carc. 1A, H350i
cumene	(CAS No) 98-82-8 (EC no) 202-704-5 (EC index no) 601-024-00-X	0.1 – 1	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
4-methylpentan-2-one	(CAS No) 108-10-1 (EC no) 203-550-1 (EC index no) 606-004-00-4	< 0.1	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Eye Irrit. 2, H319 STOT SE 3, H335
Isopropanol	(CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0	< 0.1	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
- First-aid measures after ingestion : Get medical advice/attention if you feel unwell. Rinse mouth. Do NOT induce vomiting.

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

- Symptoms/injuries : Suspected of damaging fertility or the unborn child. May cause damage to organs through prolonged or repeated exposure.
- Symptoms/injuries after inhalation : Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause drowsiness or dizziness.
- Symptoms/injuries after skin contact : Causes skin irritation.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Carbon dioxide. Dry chemical. Foam.
- Unsuitable extinguishing media : None known.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.
- Hazardous decomposition products in case of fire : Burning produces irritating, toxic and noxious fumes. Carbon oxides (CO, CO₂).

5.3. Advice for firefighters

- Firefighting instructions : Cool adjacent structures and containers with water spray to protect and prevent ignition. Eliminate all ignition sources if safe to do so. Exercise caution when fighting any chemical fire.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Use self-contained breathing apparatus. Wear fire/flame resistant/retardant clothing. EN469.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking. Avoid all eye and skin contact and do not breathe vapour and mist.

6.1.1. For non-emergency personnel

- Protective equipment : Chemical goggles or safety glasses. Wear suitable gloves.
- Emergency procedures : Evacuate unnecessary personnel. Eliminate ignition sources.

6.1.2. For emergency responders

- Protective equipment : Chemical goggles or safety glasses. Wear suitable gloves.
- Emergency procedures : Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Avoid release to the environment. Do not discharge into drains or the environment.

6.3. Methods and material for containment and cleaning up

- For containment : Do not allow minor leaks or spills to accumulate on walking surfaces. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
- Methods for cleaning up : Absorb and/or contain spill with inert material, then place in suitable container. Following recovery, flush area with water. Clean surface thoroughly to remove residual contamination.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : No open flames. No smoking. Use only non-sparking tools. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid all eye and skin contact and do not breathe vapour and mist.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, lighting equipment.
- Storage conditions : Keep in fireproof place. Keep container tightly closed.
- Incompatible products : Strong oxidizers.
- Incompatible materials : Heat sources.
- Heat and ignition sources : Keep away from heat, sparks and flame.
- Prohibitions on mixed storage : Incompatible materials.
- Storage area : Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Paint.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Carbon black (1333-86-4)		
Belgium	Limit value (mg/m ³)	3.5 mg/m ³
Denmark	Grænseværdie (langvarig) (mg/m ³)	3.5 mg/m ³
Denmark	Anmærkninger (DK)	K
Finland	HTP-arvo (8h) (mg/m ³)	3.5 mg/m ³
Finland	HTP-arvo (15 min)	7 mg/m ³
France	VME (mg/m ³)	3.5 mg/m ³
Ireland	OEL (8 hours ref) (mg/m ³)	3.5 mg/m ³
Ireland	OEL (15 min ref) (mg/m ³)	7 mg/m ³
Spain	VLA-ED (mg/m ³)	3.5 mg/m ³
Sweden	nivågränsvärde (NVG) (mg/m ³)	3 mg/m ³
United Kingdom	Local name	Carbon black
United Kingdom	WEL TWA (mg/m ³)	3.5 mg/m ³
United Kingdom	WEL STEL (mg/m ³)	7 mg/m ³
Norway	Grenseverdier (AN) (mg/m ³)	3.5 mg/m ³
1,2,4-trimethylbenzene (95-63-6)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	200 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	200 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Lithuania	IPRV (mg/m ³)	100 mg/m ³
Lithuania	IPRV (ppm)	20 ppm
Lithuania	Remark (LT)	Ta pati RV, iðreikðta mg/m ³ , yra taikoma kitiems polialkilbenzenams.
Netherlands	Grenswaarde TGG 8H (mg/m ³)	100 mg/m ³
Netherlands	Grenswaarde TGG 15MIN (mg/m ³)	200 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Sweden	kortidsvärde (KTV) (mg/m ³)	170 mg/m ³
Sweden	kortidsvärde (KTV) (ppm)	35 ppm
Sweden	Anmärkning (SE)	55
United Kingdom	WEL TWA (mg/m ³)	125 mg/m ³
United Kingdom	WEL TWA (ppm)	25 ppm

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

cumene (98-82-8)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	200 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Finland	Huomautus (FI)	iho
France	Note (FR)	Peau
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	250 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	50 ppm
Germany	TRGS 903 (BGW)	2 mg/l Isopropylbenzol (Blut; Expositionsende bzw. Schichtende) 50 mg/l 2-Phenylpropan-2-ol (Urin; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m ³)	100 mg/m ³
Slovakia	NPHV (priemerná) (ppm)	20 ppm
Slovakia	Upozornenie (SK)	(K)
Spain	VLA-ED (mg/m ³)	100 mg/m ³
Spain	VLA-ED (ppm)	20 ppm
Spain	VLA-EC (mg/m ³)	250 mg/m ³
Spain	VLA-EC (ppm)	50 ppm
Spain	Notes	vía dérmica, VLI
Sweden	Anmärkning (SE)	H
Colloidal Silicon dioxide (112945-52-5)		
Austria	MAK (mg/m ³)	4 mg/m ³
Austria	Remark (AT)	(einatembare Fraktion)
Finland	HTP-arvo (8h) (mg/m ³)	5 mg/m ³
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	4 mg/m ³
Germany	Remark (TRGS 900)	(einatembare Fraktion)
Ireland	OEL (8 hours ref) (mg/m ³)	2.4 mg/m ³ 6 mg/m ³ (total inhalable dust)
Spain	VLA-ED (mg/m ³)	10 mg/m ³
Spain	Notes	(respirable aerosol)
United Kingdom	WEL TWA (mg/m ³)	6 mg/m ³ (inhalable aerosol) 2.4 mg/m ³ (respirable aerosol)
Switzerland	VME (mg/m ³)	4 mg/m ³
Switzerland	Remark (CH)	(einatebarer Staub)
Xylene (1330-20-7)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	218 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
Finland	Huomautus (FI)	iho
Netherlands	Grenswaarde TGG 8H (ppm)	50 ppm
Poland	NDSch (mg/m ³)	350 mg/m ³
Slovakia	NPHV (priemerná) (mg/m ³)	221 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	50 ppm (K) 1.5 ppm (Xylén) 2000 ppm (Suma kyselín 2,3,4-metylhippurových)
Sweden	Anmärkning (SE)	(H)
ethylbenzene (100-41-4)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	434 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	100 ppm
France	VME (mg/m ³)	88.4 mg/m ³
France	VME (ppm)	20 ppm
France	VLE (mg/m ³)	442 mg/m ³
France	VLE (ppm)	100 ppm
France	Note (FR)	Peau
Germany	TRGS 903 (BGW)	1 mg/l Ethylbenzol (Blut; Expositionsende bzw. Schichtende) 800 mg/l Mandelsäure + Phenylglyoxylsäure (Urin; Expositionsende bzw. Schichtende)

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

ethylbenzene (100-41-4)		
Slovakia	NPHV (priemerná) (mg/m ³)	442 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	100 ppm (K) 12 ppm (2 - a 4 -Etylfenol) 1600 ppm (Kyselina mandľová a kyselina fenylglyoxylová)
Spain	VLA-ED (mg/m ³)	441 mg/m ³ vía dérmica, VLB, VLI
Spain	VLA-ED (ppm)	100 ppm vía dérmica, VLB, VLI 700 ppm I, S "(Suma del ácido mandélico y el ácido fenilgloxílico en orina; Final de la semana laboral 1)"
Spain	VLA-EC (mg/m ³)	884 mg/m ³ vía dérmica, VLB, VLI
Spain	VLA-EC (ppm)	200 ppm vía dérmica, VLB, VLI
Toluene (108-88-3)		
EU	IOELV TWA (mg/m ³)	192 mg/m ³
EU	IOELV TWA (ppm)	50 ppm
EU	IOELV STEL (mg/m ³)	384 mg/m ³
EU	IOELV STEL (ppm)	100 ppm
EU	Notes	Skin
Denmark	Grænseværdie (kortvarig) (mg/m ³)	188 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	50 ppm
France	Note (FR)	Peau
Germany	TRGS 903 (BGW)	3 mg/l o-Kresol (Urin; bei Langzeitexposition/Expositionsende bzw. Schichtende) 1 mg/l Toluol (Blut; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m ³)	192 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	50 ppm (K) 600 ppm (Toluén) 1.5 ppm (O-krezol) 2401 ppm (Kyselina hippurová)
Sweden	Anmärkning (SE)	(B,H)
4-methylpentan-2-one (108-10-1)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	166 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	40 ppm
Germany	TRGS 900 Limitation of exposure peaks (mg/m ³)	166 mg/m ³
Germany	TRGS 900 Limitation of exposure peaks (ppm)	40 ppm
Germany	TRGS 903 (BGW)	3.5 mg/l
Germany	Remark (TRGS 903)	4-Methylpentan-2-on (Urin; Expositionsende bzw. Schichtende)
Slovakia	NPHV (priemerná) (mg/m ³)	83 mg/m ³ (K)
Slovakia	NPHV (priemerná) (ppm)	20 ppm (K) 3.5 ppm (Hexón)
Silicon dioxide (cristobalite) (14808-60-7)		
Austria	MAK (mg/m ³)	0.15 mg/m ³
Austria	Remark (AT)	(alveolengängige Fraktion; Jahres-Miw)
Belgium	Limit value (mg/m ³)	0.1 mg/m ³
Belgium	Remark (BE)	(poussières alvéolaires)
Denmark	Grænseværdie (langvarig) (mg/m ³)	0.3 mg/m ³ (inhalable aerosol) 0.1 mg/m ³ (K, respirable aerosol)
Denmark	Grænseværdie (kortvarig) (mg/m ³)	0.6 mg/m ³ (inhalable aerosol) 0.2 mg/m ³ (K, respirable aerosol)
Finland	HTP-arvo (8h) (mg/m ³)	0.05 mg/m ³
Finland	Huomautus (FI)	(alveolijae)
France	VME (mg/m ³)	0.1 mg/m ³
France	Note (FR)	(poussières alvéolaires de quartz)
Hungary	AK-érték	0.15 mg/m ³
Hungary	Megjegyzések (HU)	(respirable aerosol)
Ireland	OEL (8 hours ref) (mg/m ³)	0.1 mg/m ³

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Silicon dioxide (cristobalite) (14808-60-7)		
Lithuania	IPRV (mg/m ³)	0.1 mg/m ³
Lithuania	Remark (LT)	(Piūrėk IX skyriaus 3 pastabà)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	0.075 mg/m ³
Netherlands	Remark (MAC)	(Voor respirabel stof) (kankerverwekkende stoff)
Poland	NDS (mg/m ³)	2 mg/m ³ (krzemionke powyzej 50%; pyl calkowity) 0.3 mg/m ³ (krzemionke powyzej 50%; pyl respirabilny) 2 mg/m ³ (krzemionke od 2% do 50%; pyl calkowity) 0.3 mg/m ³ (krzemionke od 2% do 50%; pyl respirabilny)
Slovakia	NPHV (priemernà) (mg/m ³)	0.1 mg/m ³
Slovakia	Upozornenie (SK)	(Dokázaný karcinogén pre ludi, R)
Spain	VLA-ED (mg/m ³)	0.1 mg/m ³
Spain	Notes	(respirable aerosol)
Sweden	nivågränsvärde (NVG) (mg/m ³)	0.1 mg/m ³
Sweden	Anmärkning (SE)	(respirabelt damm; M, 1)
Switzerland	VME (mg/m ³)	0.15 mg/m ³
Switzerland	Remark (CH)	(respirable aerosol)
Isopropanol (67-63-0)		
Denmark	Grænseværdie (kortvarig) (mg/m ³)	980 mg/m ³
Denmark	Grænseværdie (kortvarig) (ppm)	400 ppm
Germany	TRGS 903 (BGW)	50 mg/l Aceton (Blut; Expositionsende bzw. Schichtende)
Netherlands	Grenswaarde TGG 8H (mg/m ³)	650 mg/m ³
Netherlands	Grenswaarde TGG 8H (ppm)	250 ppm
Slovakia	NPHV (priemernà) (mg/m ³)	500 mg/m ³
Slovakia	NPHV (priemernà) (ppm)	200 ppm
Spain	VLA-ED (mg/m ³)	500 mg/m ³ VLB, s
Spain	VLA-ED (ppm)	200 ppm VLB, s 40 ppm F, I "(Acetona en orina; Final de la semana, laboral 1)"
Spain	VLA-EC (mg/m ³)	1000 mg/m ³ VLB, s
Spain	VLA-EC (ppm)	400 ppm VLB, s

8.2. Exposure controls

Appropriate engineering controls	: Avoid splashing. Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear suitable gloves. Use rubber gloves. EN374.
Eye protection	: Chemical goggles or safety glasses. EN166.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation wear respiratory protection. Supplied air respirator if working in a confined area. EN 12083.
Environmental exposure controls	: Prevent leakage or spillage.
Other information	: Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Opaque liquid.
Colour	: Black.
Odour	: Solvent.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 111 °C
Flash point	: 6 °C

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: 1000 - 2000 cSt @ 40 °C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content : 696 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Highly flammable liquid and vapour. May form flammable/explosive vapour-air mixture.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Open flame. Direct sunlight.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

May release flammable gases. Burning produces irritating, toxic and noxious fumes. Carbon oxides (CO, CO₂).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

Pyromark® High Temperature Paint 1200 Flat Black	
ATE CLP (dust,mist)	4.105 mg/l/4h
Carbon black (1333-86-4)	
LD50 oral rat	> 8000 mg/kg
LC50 inhalation rat (mg/l)	> 4.6 mg/m ³ 4 h
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5610 mg/l/4h
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	3415 mg/kg
LD50 dermal rat	3440 mg/kg
LC50 inhalation rat (ppm)	954 ppm
ATE CLP (oral)	3415.000 mg/kg bodyweight
ATE CLP (dermal)	3440.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
cumene (98-82-8)	
LD50 oral rat	4000 mg/kg
LD50 dermal rabbit	10600 mg/kg
LC50 inhalation rat (mg/l)	22.1 mg/l
LC50 inhalation rat (ppm)	4510 ppm/4h
ATE CLP (oral)	4000.000 mg/kg bodyweight
ATE CLP (dermal)	10600.000 mg/kg bodyweight

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

cumene (98-82-8)	
ATE CLP (gases)	4510.000 ppmv/4h
ATE CLP (vapours)	22.100 mg/l/4h
ATE CLP (dust,mist)	22.100 mg/l/4h
Colloidal Silicon dioxide (112945-52-5)	
LD50 oral rat	> 10000 mg/kg
LC50 inhalation rat (mg/l)	> 0.139 mg/l/4h
Xylene (1330-20-7)	
LD50 oral rat	> 3500 mg/kg
ATE CLP (dermal)	1100.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	17.8 ml/kg
LC50 inhalation rat (ppm)	< 1500 ppm
ATE CLP (oral)	3500.000 mg/kg bodyweight
ATE CLP (dust,mist)	1.500 mg/l/4h
Toluene (108-88-3)	
LD50 oral rat	5580 mg/kg EU Method B.1 (Acute Toxicity (Oral))
LC50 inhalation rat (mg/l)	> 20 mg/l/4h OECD Guideline 403 (Acute Inhalation Toxicity)
ATE CLP (oral)	5580.000 mg/kg bodyweight
4-methylpentan-2-one (108-10-1)	
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (ppm)	2000 (2000 - 4000) ppm/4h
ATE CLP (gases)	2000.000 ppmv/4h
ATE CLP (dust,mist)	1.500 mg/l/4h
Isopropanol (67-63-0)	
LD50 oral rat	5840 mg/kg
LD50 dermal rabbit	16.4 ml/kg
LC50 inhalation rat (ppm)	> 10000 ppm/4h
ATE CLP (oral)	5840.000 mg/kg bodyweight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified.
Reproductive toxicity	: Suspected of damaging fertility or the unborn child.
Specific target organ toxicity (single exposure)	: May cause drowsiness or dizziness.
Specific target organ toxicity (repeated exposure)	: May cause damage to organs through prolonged or repeated exposure.

Toluene (108-88-3)	
LOAEL (inhalation, rat, gas, 90 days)	1250 ppmv/6h/day
NOAEL (oral, rat, 90 days)	625 mg/kg bodyweight/day EU Method B.26. Increased relative weights of liver and kidney are interpreted as toxicologically insignificant differences in the absence of histological findings.
NOAEL (inhalation, rat, gas, 90 days)	300 ppmv/6h/day OECD Guideline 453

Aspiration hazard : Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Harmful to aquatic life with long lasting effects.

Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
LC50 fish 1	8.2 mg/l
EC50 Daphnia 1	4.5 mg/l
EC50 other aquatic organisms 1	3.7 mg/l
NOEC (acute)	0.5 mg/l

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

1,2,4-trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l
LC50 other aquatic organisms 1	3.6 mg/l
EC50 other aquatic organisms 1	2.356 mg/l
cumene (98-82-8)	
LC50 fish 1	4.8 mg/l
EC50 other aquatic organisms 1	2.14 mg/l
NOEC (acute)	1.9 mg/l
ethylbenzene (100-41-4)	
LC50 fish 1	5.1 mg/l
EC50 other aquatic organisms 1	7.7 mg/l
NOEC (acute)	3.3 mg/l
Toluene (108-88-3)	
LC50 fish 1	5.5 mg/l
EC50 Daphnia 2	3.78 mg/l
ErC50 (algae)	134 mg/l
LOEC (chronic)	2.77 mg/l
NOEC chronic fish	1.39 mg/l
NOEC chronic crustacea	0.74 mg/l
4-methylpentan-2-one (108-10-1)	
LC50 fish 1	> 179 96 h
EC50 Daphnia 1	> 200 48 h
Isopropanol (67-63-0)	
LC50 fish 1	10000 mg/l

12.2. Persistence and degradability

Pyromark® High Temperature Paint 1200 Flat Black	
Persistence and degradability	May cause long-term adverse effects in the environment.
Carbon black (1333-86-4)	
Persistence and degradability	Not readily biodegradable.
Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
Persistence and degradability	Not established.
cumene (98-82-8)	
Persistence and degradability	May cause long-term adverse effects in the environment.
ethylbenzene (100-41-4)	
Persistence and degradability	Not established.
Toluene (108-88-3)	
Persistence and degradability	Readily biodegradable.
4-methylpentan-2-one (108-10-1)	
Persistence and degradability	Readily biodegradable.
Isopropanol (67-63-0)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Solvent naphtha (petroleum), light arom., Low boiling point naphtha - unspecified (benzene <0.1%) (64742-95-6)	
Bioaccumulative potential	Not established.
cumene (98-82-8)	
Bioaccumulative potential	Not established.
Xylene (1330-20-7)	
BCF fish 1	1.3 mg/l
Bioaccumulative potential	Not expected to bioaccumulate.
ethylbenzene (100-41-4)	
Bioaccumulative potential	Not established.
Toluene (108-88-3)	
Bioconcentration factor (BCF REACH)	90
Log Kow	2.73

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

4-methylpentan-2-one (108-10-1)	
Log Pow	1.9
Isopropanol (67-63-0)	
Bioaccumulative potential	Not expected to bioaccumulate.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Pyromark® High Temperature Paint 1200 Flat Black	
PBT: not yet assessed	
vPvB: not yet assessed	
Component	
Toluene (108-88-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations.
Additional information	: Handle empty containers with care because residual vapours are flammable.
European List of Waste (LoW) code	: For disposal within the EC, the appropriate code according to the European Waste Catalogue (EWC) should be used. 20 01 27* - paint, inks, adhesives and resins containing dangerous substances
H code	: H14 - 'Ecotoxic': waste which presents or may present immediate or delayed risks for one or more sectors of the environment. H3-A - 'Highly flammable' : — liquid substances and preparations having a flash point below 21 °C (including extremely flammable liquids), or — substances and preparations which may become hot and finally catch fire in contact with air at ambient temperature without any application of energy, or — solid substances and preparations which may readily catch fire after brief contact with a source of ignition and which continue to burn or to be consumed after removal of the source of ignition, or — gaseous substances and preparations which are flammable in air at normal pressure, or — substances and preparations which, in contact with water or damp air, evolve highly flammable gases in dangerous quantities. H4 - 'Irritant': non-corrosive substances and preparations which, through immediate, prolonged or repeated contact with the skin or mucous membrane, can cause inflammation. H5 - 'Harmful': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may involve limited health risks. H10 - 'Toxic for reproduction': substances and preparations which, if they are inhaled or ingested or if they penetrate the skin, may induce non-hereditary congenital malformations or increase their incidence.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 1263
UN-No. (IATA)	: 1263
UN-No. (IMDG)	: 1263
UN-No. (ADN)	: 1263

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: Paint
Proper Shipping Name (IATA)	: Paint
Proper Shipping Name (IMDG)	: PAINT
Proper Shipping Name (ADN)	: PAINT
Transport document description (ADR)	: UN 1263 PAINT, 3, II, (D/E)

14.3. Transport hazard class(es)

Class (ADR)	: 3
Classification code (ADR)	: F1
Class (IATA)	: 3

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Class (IMDG) : 3
Class (ADN) : 3
Classification code (ADN) : F1

14.4. Packing group

Packing group (ADR) : II
Packing group (IATA) : II
Packing group (IMDG) : II
Packing group (ADN) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Hazard identification number (Kemler No.) : 33
Classification code (ADR) : F1
Orange plates :



Tunnel restriction code (ADR) : D/E
EAC code : •3YE

14.6.2. Transport by sea

EmS-No. (Fire) : F-E
EmS-No. (Spillage) : S-E
Stowage category (IMDG) : B

14.6.3. Inland waterway transport

Carriage prohibited (ADN) : No

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances
VOC content : 696 g/l

15.1.2. National regulations

Germany

Water hazard class (WGK) : 3 - severe hazard to waters
WGK remark : Classification based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

according to Regulation (EU) 2015/830

Indication of changes:
Original Document.

Abbreviations and acronyms:

	ATE: Acute Toxicity Estimate
	CAS (Chemical Abstracts Service) number
	CLP: Classification, Labelling, Packaging.
	EC50: Environmental Concentration associated with a response by 50% of the test population.

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

	GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
	LD50: Lethal Dose for 50% of the test population
	OSHA: Occupational Safety & Health Administration
	PBT: Persistent, Bioaccumulative, Toxic
	TWA: Time Weighted Average
	TSCA: Toxic Substances Control Act

Data sources : ESIS (European chemical Substances Information System; accessed at: <http://esis.jrc.ec.europa.eu/index.php?PGM=cla>.
European Chemicals Agency (ECHA) C&L Inventory database. Accessed at <http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database>.
Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing", Fifth Edition.
National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th edition.
REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1A	Carcinogenicity (inhalation) Category 1A
Carc. 2	Carcinogenicity, Category 2
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Repr. 2	Reproductive toxicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H350i	May cause cancer by inhalation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H361d	Suspected of damaging the unborn child
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Flam. Liq. 2	H225	On basis of test data
Acute Tox. 4 (Inhalation:dust,mist)	H332	Calculation method
Skin Irrit. 2	H315	Calculation method
Repr. 2	H361	Calculation method
STOT SE 3	H336	Calculation method
STOT RE 2	H373	Calculation method

Pyromark® High Temperature Paint 1200 Flat Black

Safety Data Sheet

according to Regulation (EU) 2015/830

Aquatic Chronic 3	H412	Calculation method
-------------------	------	--------------------

LA-CO EU CLP SDS

SDS Prepared by: The Redstone Group, LLC
6077 Frantz Rd.
Suite 206
Dublin, OH USA 43016
T 614-923-7472
www.redstonegrp.com

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product