



-1 TH 33:22

SPORTS 1  
LIVE

# Bekymringsmelding fra SAFE om grov uforstand: Bruk av bluss på fotballtribuner

Stavanger 5. november 2019

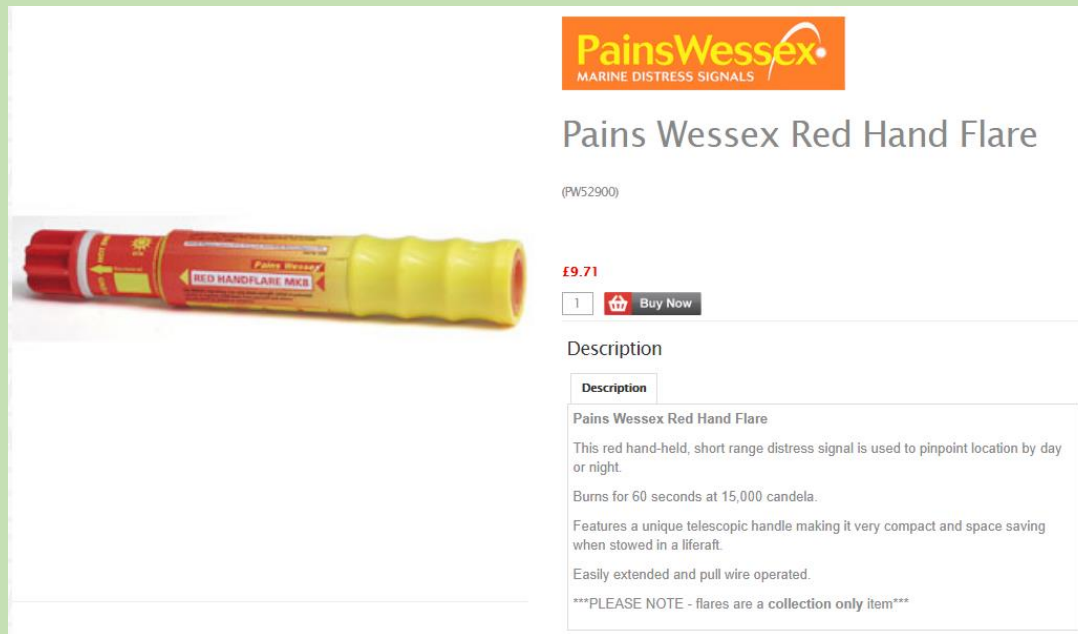
Halvor Erikstein

organisasjonssekretær

yrkeshygieniker SYH

SAFE [www.safe.no](http://www.safe.no)

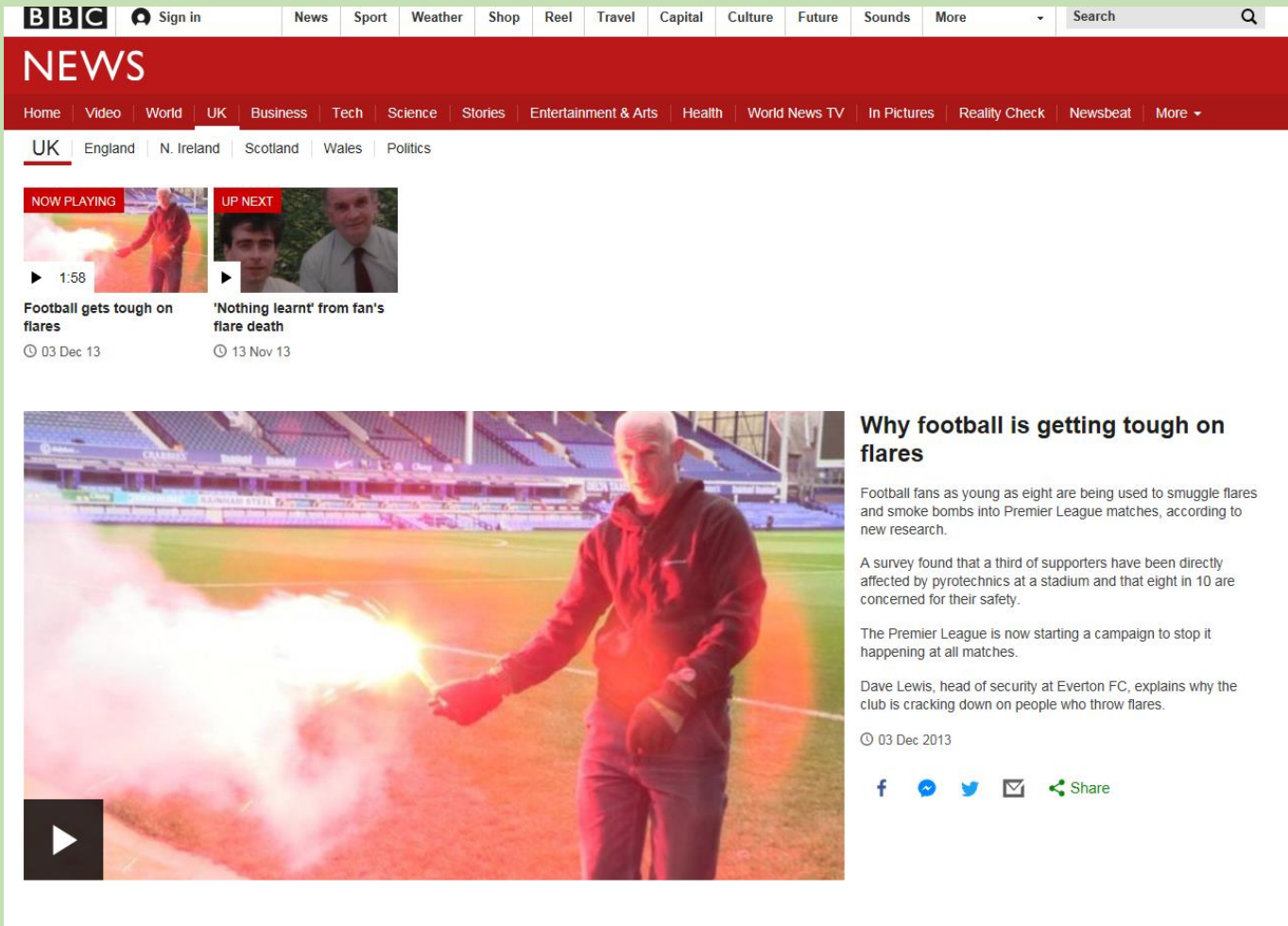
# Bruk av bluss på fotballtribuner



- Røyken fra bluss er svært giftig.
- Røyken kan føre til en livsvarig astmatilstand (RADS).
- Den kjemiske reaksjonen kan gi temperature på opptil 1600 Celsius.
- Bluss kan forårsake alvorlig forbrenning.
- Blusset kan ikke slokkes, men må brenne ut.
- Røyken er svært irriterende og gir særlig stort ubehag for følsomme luftveger

<https://en.wikipedia.org/wiki/Flare>

# Bluss er umulige å slukke. De kan gi livstruende og dødelige skader



The screenshot shows the BBC News homepage with a red navigation bar. The main content area features a large video player on the left showing a man in a red jacket holding a flare. To the right of the video is the article text.

**NEWS**

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**Now Playing** 1:58 **UP NEXT**

**Football gets tough on flares**  
03 Dec 13

**'Nothing learnt' from fan's flare death**  
13 Nov 13

### Why football is getting tough on flares

Football fans as young as eight are being used to smuggle flares and smoke bombs into Premier League matches, according to new research.

A survey found that a third of supporters have been directly affected by pyrotechnics at a stadium and that eight in 10 are concerned for their safety.

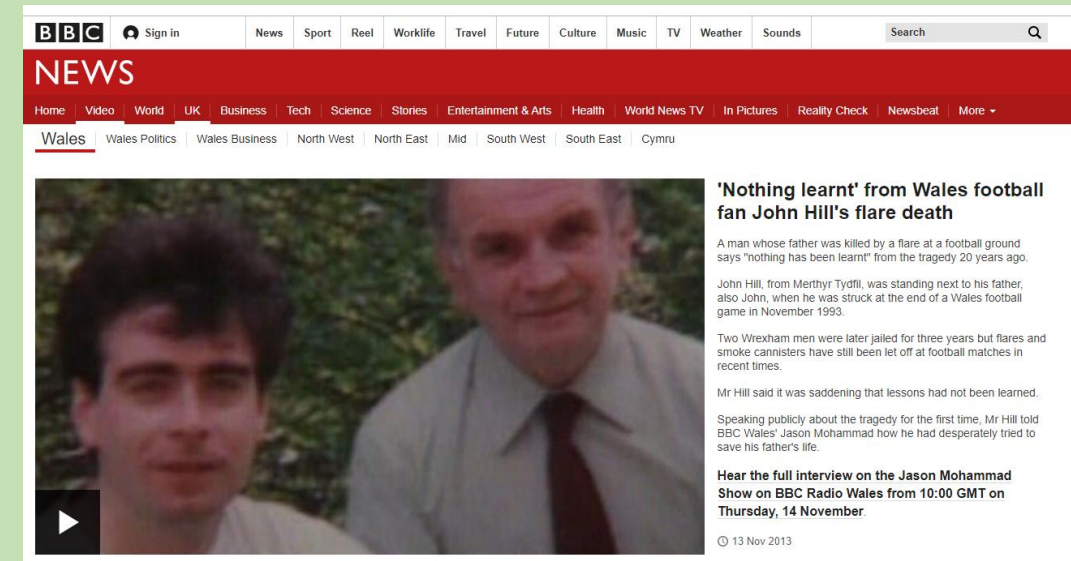
The Premier League is now starting a campaign to stop it happening at all matches.

Dave Lewis, head of security at Everton FC, explains why the club is cracking down on people who throw flares.

03 Dec 2013

f WhatsApp Twitter Email Share

<https://www.bbc.com/news/av/uk-25196501/why-football-is-getting-tough-on-flares>



The screenshot shows the BBC News homepage with a red navigation bar. The main content area features a video player on the left showing two men in a conversation. To the right of the video is the article text.

**NEWS**

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Wales | Wales Politics | Wales Business | North West | North East | Mid | South West | South East | Cymru

**'Nothing learnt' from Wales football fan John Hill's flare death**

A man whose father was killed by a flare at a football ground says "nothing has been learnt" from the tragedy 20 years ago.

John Hill, from Merthyr Tydfil, was standing next to his father, also John, when he was struck at the end of a Wales football game in November 1993.

Two Wrexham men were later jailed for three years but flares and smoke canisters have still been let off at football matches in recent times.

Mr Hill said it was saddening that lessons had not been learned.

Speaking publicly about the tragedy for the first time, Mr Hill told BBC Wales' Jason Mohammad how he had desperately tried to save his father's life.

**Hear the full interview on the Jason Mohammad Show on BBC Radio Wales from 10:00 GMT on Thursday, 14 November.**

13 Nov 2013

<https://www.bbc.com/news/av/uk-wales-24931000/nothing-learnt-from-wales-football-fan-john-hill-s-flare-death>



# Alvorlig sikkerhet- og helserisiko fra bruk av bluss har lenge vært kjent i England

**The Telegraph**

Home Video News World **Sport** Business Money Comment Culture Travel Life Women

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Live scores | Fixtures | Results | Tables | Premier League | Champions League | A-Z

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## Campaign starts to warn of dangers of fans using flares and smoke bombs in grounds

Poster alerts to be presented in the form of fans' chants after huge increase in incidents over the past three seasons



Growing problem: assistant referee David Bryan takes evasive action after a smoke bomb is thrown onto the pitch at Villa Park during the game against Tottenham in October. Photo: ACTION IMAGES

By Henry Winter  
11:00PM GMT 02 Dec 2013

**Premier League**  
Sport »  
Henry Winter »  
Football »  
Championship »  
League One »

The **Premier League**, Football League and Football Association have launched a campaign to alert fans to the potential dangers of flares and smoke bombs.

An assistant referee was struck by a pyrotechnic at Villa Park in October

<https://www.telegraph.co.uk/sport/football/competitions/premier-league/10490064/Campaign-starts-to-warn-of-dangers-of-fans-using-flares-and-smoke-bombs-in-grounds.html>

**BBC** Sign in News Sport Weather Shop Reel Travel Mo

# NEWS

Home Video World **UK** Business Tech Science Stories Entertainment & Arts

**Scotland** Scotland Politics Scotland Business Edinburgh, Fife & East Glasgow & West

## Flares and smoke bombs: The ugly side of the beautiful game

By Jennifer Westbrook  
BBC Scotland news

© 31 January 2016

f WhatsApp Twitter Email Share

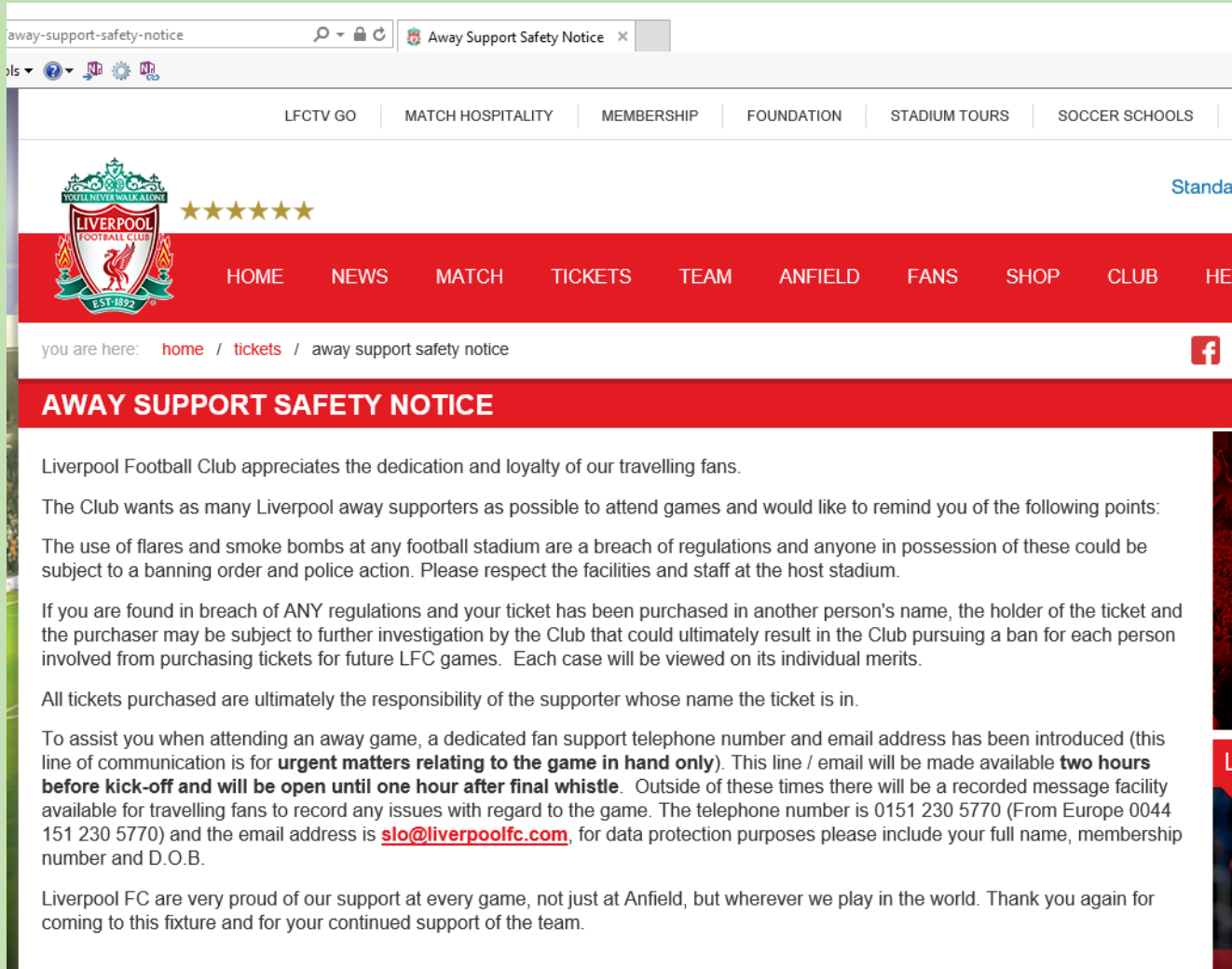


The SPFL is concerned by the use of smoke bombs and flares at matches

Setting off smoke bombs and flares at football stadiums has long been a

<https://www.bbc.com/news/uk-scotland-35402735>

# Liverpool FC – forbud mot bruk av pyroeffekter



away-support-safety-notice

LFCTV GO | MATCH HOSPITALITY | MEMBERSHIP | FOUNDATION | STADIUM TOURS | SOCCER SCHOOLS

LIVERPOOL FOOTBALL CLUB

HOME NEWS MATCH TICKETS TEAM ANFIELD FANS SHOP CLUB HEL

you are here: [home](#) / [tickets](#) / away support safety notice

## AWAY SUPPORT SAFETY NOTICE

Liverpool Football Club appreciates the dedication and loyalty of our travelling fans.

The Club wants as many Liverpool away supporters as possible to attend games and would like to remind you of the following points:

The use of flares and smoke bombs at any football stadium are a breach of regulations and anyone in possession of these could be subject to a banning order and police action. Please respect the facilities and staff at the host stadium.

If you are found in breach of ANY regulations and your ticket has been purchased in another person's name, the holder of the ticket and the purchaser may be subject to further investigation by the Club that could ultimately result in the Club pursuing a ban for each person involved from purchasing tickets for future LFC games. Each case will be viewed on its individual merits.

All tickets purchased are ultimately the responsibility of the supporter whose name the ticket is in.

To assist you when attending an away game, a dedicated fan support telephone number and email address has been introduced (this line of communication is for **urgent matters relating to the game in hand only**). This line / email will be made available **two hours before kick-off and will be open until one hour after final whistle**. Outside of these times there will be a recorded message facility available for travelling fans to record any issues with regard to the game. The telephone number is 0151 230 5770 (From Europe 0044 151 230 5770) and the email address is [slo@liverpoolfc.com](mailto:slo@liverpoolfc.com), for data protection purposes please include your full name, membership number and D.O.B.

Liverpool FC are very proud of our support at every game, not just at Anfield, but wherever we play in the world. Thank you again for coming to this fixture and for your continued support of the team.

<https://www.liverpoolfc.com/tickets/away-support-safety-notice>



6th May 2019

## Pyrotechnics are illegal and prohibited

LFC

Ahead of tomorrow's Champions League semi-final, second leg against FC Barcelona at Anfield, Liverpool FC would like to remind supporters that flares, smoke bombs and pyrotechnics are illegal and prohibited.

Any individual who is found taking these in to the stadium is liable to arrest. The use of such devices breaches ground safety regulation and poses serious risk of injury to fellow fans including serious health risks.

Should pyrotechnic devices be ignited during the game, this could lead to sanctions being imposed on the club, as well as the activation of fire alarms and subsequent evacuation of the stadium and abandonment of the match. We would like to remind supporters of the serious consequences they will face surrounding the possession or use of pyrotechnics and any other illegal items.

We would also like to advise supporters to arrive at the stadium and take their seats early in order to support the team and help create a positive atmosphere.

Liverpool Football Club would like to thank supporters in advance who show their support in a friendly, respectful and considerate manner.

pyrotechnics



<https://www.liverpoolfc.com/news/announcements/349325-pyrotechnics-are-illegal-and-prohibited>



# Wembley stadion. Hvordan hindre at bluss blir tatt inn på stadion



<https://www.youtube.com/watch?v=iaZ3E1mD96Q>

## Premier League: Banning orders or prison warning for fans with flares

31 October 2013 | Football

Share



Football supporters who take flares or smoke bombs into stadiums are risking banning orders or even prison, the Premier League will warn.

It is launching a campaign aimed at eradicating the growing trend of fans taking pyrotechnic devices to matches.

Recent incidents involving flares have occurred at Wembley and Villa Park.

"We will say to fans we understand you think this is a bit of fun but they are dangerous," said the Premier League's head of supporter services Cathy Long.

She told BBC Breakfast: "We want people to be aware of what the dangers are, both to themselves and the people around them."

"It will also make people aware of what the consequences of their actions are - that this can carry a banning order, it can carry a custodial sentence, there can be really quite serious consequences for fans and we want to avoid that."

Last week, **Fifa began disciplinary proceedings** against the English and Polish football associations.

### Clubs involved in three or more incidents with flares in 2013-14

5: Everton, Manchester United, Wigan Athletic

4: Liverpool, Manchester City, Sheffield United

# Premier League: Bortvisning - fengsling

7th August

## Crackdown on flares and smoke bombs launched at York City FC



By George Dodd | [dodd\\_george](#)  
Reporter



[f](#) [t](#) [in](#) [e](#) 3 comments

**YORK City Football Club has announced a crackdown on the use of pyrotechnics at games after a flare was thrown onto the pitch during the team's opening game of the season.**

The incident during City's 3-1 win away at Altrincham on Saturday has

<https://www.yorkpress.co.uk/news/17819754.crackdown-flares-smokebombs-launched-york-city-fc/>

<https://www.bbc.com/sport/football/24754903>



# Premier League: Bortvisning - fengsling

## BANNED FROM ALL UK FOOTBALL MATCHES



## BANNED FROM ALL UK FOOTBALL MATCHES

ESL UPDATES

SPOTLIGHT

Sep 14, 2017

### USE OF FLARES & PYROTECHNICS



While such devices are common at football matches overseas, crowds in UK stadiums are banned from using them. Officers are reviewing footage from matches to identify suspects.

#### Metropolitan police

"Flares and pyrotechnic devices inside stadiums are very dangerous and they can reach extremely high temperatures," inspector Matt Ashmead from the Metropolitan police's central football unit said.

"There is a very good reason that they are banned from football matches, as they can cause horrific injuries and can also be frightening for the many young fans that attend matches.

"Some fans might think that setting off a flare is a good way to support your team, but it is putting yourself

### RECENT NEWS

- Manor Eke Out Slender Win
- Ramsey Goal Sees Stansted
- Saturday 2nd November Preview Round-Up
- Saffron Walden Defeated Ipswich
- Stow Hit Enfield For Seventh

### PAST NEWS

- November 2019
- October 2019
- September 2019
- August 2019
- July 2019
- May 2019
- April 2019
- March 2019
- February 2019
- January 2019
- December 2018
- November 2018
- October 2018

<https://essexseniorleague.co.uk/banned-from-all-uk-football-matches/>

The Guardian

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UK news

This article is more than 2 years old

### Football fans arrested after flares let off at Chelsea v Crystal Palace game

Police find flares and pyrotechnic devices hidden in toilets of Stamford Bridge where smoke bombs were set off after Palace's shock victory

Damien Gayle  
@damiengayle  
Thu 6 Apr 2017 08:59 BST

▲ Crystal Palace supporters light a flare during the Premier League game with Chelsea at Stamford Bridge in London. Palace won 2-1. Photograph: Ian Kingston/AFP/Getty Images

Football fans are under investigation after setting off smoke bombs, flares and "thunderflash" pyrotechnics as Crystal Palace scored a shock victory over rivals Chelsea on Saturday.

A 31-year-old fan was arrested and charged for possession of a flare and a 24-year-old arrested on suspicion of possession of a flare after several devices were let off in the away end at Stamford Bridge, police said.

Officers also discovered flares and pyrotechnic devices hidden inside the toilets of the Chelsea ground, and a rucksack full of pyrotechnics was found in the nearby Brompton cemetery. A photo of the bag's contents, supplied by police, also showed homemade balaclavas in red and blue, the Crystal Palace colours.

While such devices are common at football matches overseas, crowds in UK stadiums are banned from using them. Officers are reviewing footage from the match to identify other suspects.

"Flares and pyrotechnic devices inside stadiums are very dangerous and they can reach extremely high temperatures," inspector Matt Ashmead from the Metropolitan police's central football unit said.

"There is a very good reason that they are banned from football matches, as they can cause horrific injuries and can also be frightening for the many young fans that attend matches.

"Some fans might think that setting off a flare is a good way to support your team, but it is putting yourself and fellow fans at risk."

Crystal Palace, who have spent most of the season fighting relegation, thrilled fans on Saturday by ending their London rivals' 13-game unbeaten run at home.

Also arrested during the match were two men, aged 28 and 27, v drugs. A of assault ball until

Advertisement

ENDELIG ER DEN HERI!  
HELT NYE BMW X5 45e  
xDrive LADBAR HYBRID.

KAMPANJE HOS BAVARIA.

LES MER HOS BAVARIA.

Bavaria

<https://www.theguardian.com/football/2017/apr/06/football-all-fans-arrested-after-flares-let-off-at-chelsea-v-crystal-palace-game>



# Kampanje mot bruk av bluss

**Pyro Fact #01**

**SING WHEN  
YOU'RE  
COUGHING  
YOU CAN'T  
SING WHEN  
YOU'RE  
COUGHING**

The suffocating smoke from flares and smoke bombs can leave supporters fighting for breath.

[facepyrofacts.co.uk](http://facepyrofacts.co.uk)

Lunger og luftveier

**Pyro Fact #02**

**QUE SERA SERA  
WHATEVER  
WILL BE  
WILL BE  
WE'RE  
GOING  
TO A&E**

A burning flare can reach a temperature of 1600°C - extreme enough to melt most metal.

[facepyrofacts.co.uk](http://facepyrofacts.co.uk)

Temperatur 1600 °C

**Pyro Fact #03**

**BANNED IN  
THE MORNING  
YOU'RE  
GETTING  
BANNED  
IN THE  
MORNING**

Bringing flares or smoke bombs to a game could get you a criminal record and a ban.

[facepyrofacts.co.uk](http://facepyrofacts.co.uk)

Bortvisning og politianmeldelse

**Pyro Fact #06**

**DON'T  
GO  
HOME  
IN A  
ST JOHN  
AMBULANCE**


Flares contain burning metals so any injury caused by them is likely to be extreme.

[facepyrofacts.co.uk](http://facepyrofacts.co.uk)

Alvorlige brannskader

# Kampanjer mot bruk av bluss

campaign against flares football



The danger of flares

MsNewsports  
Subscribe 338

7,633 views

18 likes, 37 dislikes

Published on Dec 3, 2013  
The danger of flares  
The use of flares, fireworks and smoke bombs in British football is on the rise. It's prompted a new campaign to alert fans to the dangers of


<https://www.youtube.com/watch?v=0e4s64aM1Ok>

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## Anti-flares Campaign Launched

Tuesday 3 December 2013 08:25, UK



Flares have been thrown onto the pitch in recent Premier League matches

Facebook Twitter WhatsApp Email

Why you can trust Sky News

<https://news.sky.com/story/anti-flares-campaign-launched-10425918>



# Men i Norge er bruk av bluss bare moro?

Forsiden > Sport > Fotball > Eliteserien

## Vil gjøre bluss sikkert og lovlig



**GODE OG DÅRLIGE SIDER:** Det gikk hett for seg under kampen mellom Lillestrøm og Vålerenga. Lillestrøm møter hjemme på Åråsen lørdag. Kaoset som oppstod er et eksempel på hva ureglementert bruk av bluss kan føre til. Foto: Terje Bendiksbj

Norsk supporterallianse jobber tett med NFF og supporterklubbene for å bidra til bedre stemning i Eliteserien, men vedgår at scenene som utspant seg på Åråsen ikke hjelper saken.

Sverre Olav Botnen

28.10.2019

<https://www.tv2.no/a/10949045/>

Forsiden > Sport

## Ny blusskandale – satte fyr på Brann-banner



**BLUSS OG FLAMMER:** Brann-supporterne kastet bluss ut på banen – Vålerenga-supporterne svarte ved å sette fyr på Brann-banner. Foto: Berit Roald

Kampen mellom Vålerenga og Brann ble stoppet etter ny blusskandale.

Kristoffer Gåsvær Torgersen

1 dag siden (Oppdatert: 1 dag siden)

<https://www.tv2.no/a/10964814/>

Behov for bedre kontroll med norske fotballarenaer?



<https://www.tv2.no/a/10964814>



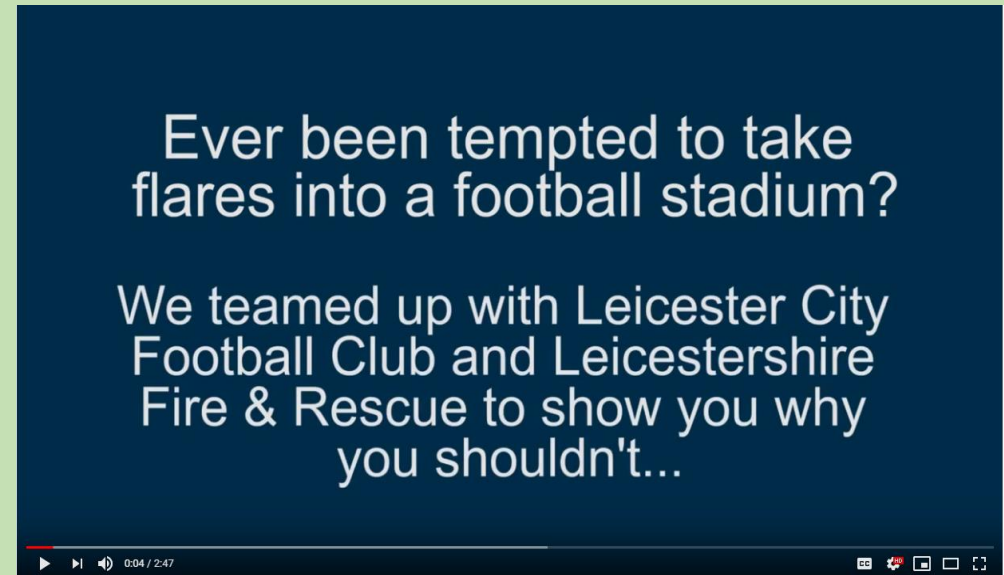
<https://www.tv2.no/a/10957924>



<https://www.tv2.no/a/10951301>



<https://www.tv2.no/a/10949045>



<https://www.youtube.com/watch?v=6qOU9ryrT-I>



# Sikkerhetsdatablader for ulike røykprodukter



## Red Handflare

MED & SOLAS Approved. Red hand-held, short range distress signal.

Product details



Documents	Specifications	Operation	Packing
<b>Product Datasheet</b>			
	<a href="#">Datasheet - 9181600 - Light &amp; Smoke Signal</a> (PDF 423.2 KB)		
	<a href="#">Datasheet Russian - 9181600 - Light &amp; Smoke Signal</a> (PDF 422.4 KB)		
	<a href="#">Datasheet Spanish - 9181600 - Light &amp; Smoke Signal</a> (PDF 226.1 KB)		
<b>Certificates Of Approval</b>			
	<a href="#">Argentine CG COA - 9181600 - Light &amp; Smoke Signal</a> (PDF 643.0 KB)		
	<a href="#">Argentine COA - 9181600 - Light &amp; Smoke Signal</a> (PDF 3.0 KB)		
	<a href="#">Canada COA - 9162000 - Orange Smoke Signal Smoke</a> (PDF 228.8 KB)		
	<a href="#">Chile COA - 9181600 - Light &amp; Smoke Signal</a> (PDF 1.0 KB)		
	<a href="#">MED Module B - 9181600 - Light &amp; Smoke Signal</a> (PDF 248.7 KB)		
	<a href="#">New Zealand COA - 9181600 - Light &amp; Smoke Signal</a> (PDF 282.2 KB)		
	<a href="#">Russia COA - 9181600 - Light &amp; Smoke Signal</a> (PDF 107.0 KB)		
	<a href="#">South Africa COA - 9181600 - Light and Smoke Signal</a> (PDF 221.4 KB)		
<b>Material Safety Datasheet</b>			
	<a href="#">Arabic GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 342.7 KB)		
	<a href="#">Austrelie English GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 273.2 KB)		
	<a href="#">Bulgarian REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 281.8 KB)		
	<a href="#">Canada English GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 272.3 KB)		
	<a href="#">Canada French GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 261.2 KB)		
	<a href="#">Chinese Modern GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 311.4 KB)		
	<a href="#">Danish REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 208.2 KB)		
	<a href="#">France French REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 252.8 KB)		
	<a href="#">German REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 292.8 KB)		
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	<a href="#">Italian REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 148.8 KB)		
	<a href="#">Norwegian REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 124.4 KB)		
	<a href="#">Portuguese REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 170.8 KB)		
	<a href="#">Russian GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 262.2 KB)		
	<a href="#">Spanish REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 170.8 KB)		
	<a href="#">UK English REACH MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 284.2 KB)		
	<a href="#">US English GHS MSDS - 9181600 - Light &amp; Smoke Signal</a> (PDF 273.0 KB)		
<b>MED Module D</b>			
	<a href="#">MED Module D</a> (PDF 124.7 KB)		
<b>Packing Specification</b>			
	<a href="#">Packing Specification - 9181600 - Light &amp; Smoke Signal</a> (PDF 168.9 KB)		
	<a href="#">Packing Specification - Expired Mixed Pyrotechnics</a> (PDF 228.2 KB)		
<b>Transport Approval Certificates</b>			
	<a href="#">BAM Classification - 9181600 - Light &amp; Smoke Signal</a> (PDF 162.7 KB)		
	<a href="#">NR Canada - 9181600 - Light &amp; Smoke Signal</a> (PDF 122.1 KB)		
	<a href="#">US DOT - 9181600 - Light and Smoke Signal</a> (PDF 102.9 KB)		
	<a href="#">US DOT 2018 - 9181600 - Light &amp; Smoke Signal</a> (PDF 88.4 KB)		
<b>Other Documents</b>			
	<a href="#">Draw Marine Comet Light and Smoke Signal 05-06-17</a> (ZIP 42.8 KB)		
	<a href="#">Mounting Instructions - 9181600 - Light &amp; Smoke Signal</a> (PDF 2.0 KB)		

<https://www.comet-marine.com/products/solas/light-smoke-signal>

**RED HANDFLARE**

WesCom Signal and Rescue Germany GmbH

Chemwatch: 63-8488

Versjon nr.: 3.1.1.1

HMS-datablad (Oppfyller forordning (EF) nr. 2015/830)

Utskiftesdato: 05/09/2016

Utskiftesdato: 2010/2017

L-REACH-NOR-NO

**SEKSJON 1 IDENTIFIKASJON AV STOFFET / BLANDINGEN OG AV SELSKAPET / VIRKSOMHETEN****1.1. Produktidentifikasjon**

Produktnavn	RED HANDFLARE
Synonymer	Ikke tilgjengelig
Varenavn ved transport	SIGNAL DEVICES, HAND1
Andre former for identifisering	Ikke tilgjengelig

**1.2. Relevante identifiserte brukstyper for stoffet eller blandingen, og brukstyper som det advares mot**

Relevante identifiserte brukstyper	Brukes i henhold til produsentens anvisninger.
Forbudte brukstyper	Ikke anvendelig

**1.3. Detaljene for leverandøren av sikkerhetsdatabladet**

Registrert selskapsnavn	WesCom Signal and Rescue Germany GmbH
Adresse	Welländer Weg 147 Bremerhaven 27574 Germany
Telefon	+49 471 3630
Faks	+49 471 3632 10
Nettside	www.wescomsignal.com
E-post	info@wescomsignal.com

**1.4. Nødtelefonnummer**

Forening / organisasjon	Consultant Lutz Harder GmbH
Nødtelefonnr.	+49 178 433 7434
Andre nødtelefonnummere	Ikke tilgjengelig

**SEKSJON 2 FAREIDENTIFIKASJON****2.1. Klassifisering av stoffet eller blandingen**

Klassifisering i henhold til direktiv (EF) nr 1272/2008 [CLP] [1]	H204 - Eksplosiv faregruppe 1.4
---	---------------------------------

Legend: 1. Klassifisert av Chemwatch; 2. Klassifisering trukket fra EF-direktiv 67/548/EEC - vedlegg; 3. Klassifisering trukket fra EF-direktiv 1272/2008 - vedlegg V1

**2.2. Merkelappelementer**

CLP etikettelement	
--------------------	--

SIGNALORD: **ADVARSEL**

Fareuttalelse(r)	H204 Fare for brann eller utkast av fragmenter.
------------------	---

**Uttalelser om forholdsregler: Forebygging**

P210	Holdes vekk fra varme, varme overflater, gnister, åpen ild og andre antenningskilder. Røyking forbudt.
P230	Må ikke utsettes for sliping/støt/klær til tilkjenning.
P231	Berørt vernehansker /vernehansker/vernehansker/vernehansker.
P240	Beholder og utrustning skal beskyttes mot statisk elektrisitet.

Continued...

# Hva står i sikkerhetsdatabladet?

**SEKSJON 3 SAMMENSETNING / INFORMASJON OM INGREDIENSER****3.1. Stoffer**

Se "Sammensetning av ingredienser" i seksjon 3.2

**3.2. Blandinger**

1.CAS-nr. 2.EF-nr. 3.Indeksnr. 4.REACH-nr.	[%vekt]	Navn	Klassifisering i henhold til direktiv (EF) nr 1272/2008 [CLP]
		device contains	
		lighter composition, delay composition and ignition composition	
		polytechnic materials of;	
1.7757-79-1 2.231-818-8 3.Ikke tilgjengelig 4.01-2119488224-35-XXXX 01-2120104950-66-XXXX	>60	<u>potassium nitrate</u>	Oksiderende fast stoff kategori 3, Akutt toksisitet (Oral) kategori 4, Øyeirritasjon kategori 2; H272, H302, H319 [1]
1.7439-95-4 2.231-104-6 3.012-001-00-3 012-002-00-9 4.01-2119537203-49-XXXX 01-2119940954-29-XXXX 01-2120113187-64-XXXX	30-60	<u>magnesium</u>	Brannfarlig fast stoff kategori 1, Avgir brennbare gasser med vann kategori 2; H228, H261 [1]
1.10042-76-9 2.233-131-9 3.Ikke tilgjengelig 4.01-2119615605-42-XXXX 01-2120105844-60-XXXX	30-60	<u>strontium nitrate</u>	Oksiderende fast stoff kategori 3, Etsende / irriterende for huden kategori 2, Øyeirritasjon kategori 2, STOT - SE (Resp. irrit.) kategori 3; H272, H315, H319, H335 [1]
1.9002-86-2 2.Ikke tilgjengelig 3.Ikke tilgjengelig 4.Ikke tilgjengelig	10-30	<u>polyvinyl chloride</u>	Etsende / irriterende for huden kategori 2, Øyeirritasjon kategori 2, STOT - SE (Resp. irrit.) kategori 3; H315, H319, H335 [1]
1.10022-31-8 2.233-020-5 3.056-002-00-7 4.01-2119986880-22-XXXX	30-60	<u>barium nitrate</u>	Akutt toksisitet (Innånding) kategori 4, Akutt toksisitet (Oral) kategori 4; H332, H302 [3]
1.7429-90-5 2.231-072-3 3.013-001-00-6 013-002-00-1 4.01-2119529243-45-XXXX	5-10	<u>ALUMINIUM</u>	Avgir brennbare gasser med vann kategori 3, Pyroforisk fast stoff kategori 1; H261, H250 [3]

Legend: 1. Klassifisert av Chemwatch; 2. Klassifisering trukket fra EF-direktiv 67/548/EEC - vedlegg; 3. Klassifisering trukket fra EF-direktiv 1272/2008 - vedlegg V1

<https://www.comet-marine.com/docs/default-source/product-documents/red-handflare-63-8488-v3-1-1-1-5-sep-2016-norway-norwegian-reach-20-oct-2017-ffx.pdf?sfvrsn=3>



# Kjemien involvert

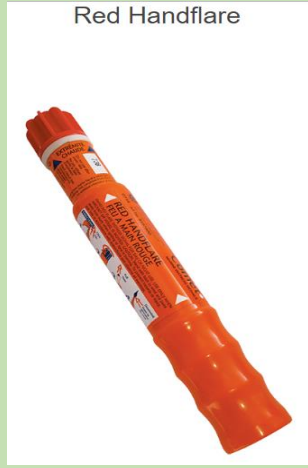
		polytechnic materials of;	
1.7757-79-1 2.231-818-8 3. Ikke tilgjengelig 4.01-2119488224-35-XXXX 01-2120104950-66-XXXX	>60	<u>potassium nitrate</u>	Oksiderende fast stoff kategori 3, Akutt toksisitet (Oral) kategori 4, Øyeirritasjon kategori 2; H272, H302, H319 <sup>[1]</sup> <b>Kaliumnitrat</b> <a href="https://en.wikipedia.org/wiki/Potassium_nitrate">https://en.wikipedia.org/wiki/Potassium_nitrate</a>
1.7439-95-4 2.231-104-6 3.012-001-00-3 012-002-00-9 4.01-2119537203-49-XXXX 01-2119940954-29-XXXX 01-2120113187-64-XXXX	30-60	<u>magnesium</u>	Brannfarlig fast stoff kategori 1, Avgir brennbare gasser med vann kategori 2; H228, H261 <sup>[1]</sup>
1.10042-76-9 2.233-131-9 3. Ikke tilgjengelig 4.01-2119615605-42-XXXX 01-2120105844-60-XXXX	30-60	<u>strontium nitrate</u>	Oksiderende fast stoff kategori 3, Etsende / irriterende for huden kategori 2, Øyeirritasjon kategori 2, STOT - SE (Resp. irrit.) kategori 3; H272, H315, H319, H335 <sup>[1]</sup> <b>Strontium nitrat</b> <a href="https://pubchem.ncbi.nlm.nih.gov/compound/Strontium-nitrate">https://pubchem.ncbi.nlm.nih.gov/compound/Strontium-nitrate</a>
1.9002-86-2 2. Ikke tilgjengelig 3. Ikke tilgjengelig 4. Ikke tilgjengelig	10-30	<u>polyvinyl chloride</u>	Etsende / irriterende for huden kategori 2, Øyeirritasjon kategori 2, STOT - SE (Resp. irrit.) kategori 3; H315, H319, H335 <sup>[1]</sup>
1.10022-31-8 2.233-020-5 3.056-002-00-7 4.01-2119986880-22-XXXX	30-60	<u>barium nitrate</u>	Akutt toksisitet (Inhal.) kategori 3; H302, H332 <b>Bariumnitrat</b> <a href="https://nj.gov/health/eoh/rtkweb/documents/fs/0186.pdf">https://nj.gov/health/eoh/rtkweb/documents/fs/0186.pdf</a>
1.7429-90-5 2.231-072-3 3.013-001-00-6 013-002-00-1 4.01-2119529243-45-XXXX	5-10	<u>ALUMINIUM</u>	Avgir brennbare gasser med vann kategori 3, Pyroforisk fast stoff kategori 1; H261, H250 <sup>[3]</sup>
<b>Legend:</b>		1. Klassifisert av Chemwatch; 2. Klassifisering trukket fra EF-direktiv 67/548/EØF - vedlegg; 3. Klassifisering trukket fra EF-direktiv 1272/2008 - vedlegg VI 4. Klassifisering trukket fra C & L	

RED HANDFLARE

	Ikke tilgjengelig	Ikke tilgjengelig
potassium nitrate	TOKSISITET	IRRITASJON
	Hud (rotte) LD50: >5000 mg/kg <sup>[1]</sup>	Ikke tilgjengelig
	Oral (rotte) LD50: >2000 mg/kg <sup>[1]</sup>	
magnesium	TOKSISITET	IRRITASJON
	Oral (rotte) LD50: >2000 mg/kg <sup>[1]</sup>	Ikke tilgjengelig
strontium nitrate	TOKSISITET	IRRITASJON
	Oral (rotte) LD50: 1892 mg/kg <sup>[2]</sup>	Ikke tilgjengelig
polyvinyl chloride	TOKSISITET	IRRITASJON
	Ikke tilgjengelig	Ikke tilgjengelig
barium nitrate	TOKSISITET	IRRITASJON
	Oral (rotte) LD50: 355 mg/kg <sup>[2]</sup>	Eye (rabbit): 100 mg/24h - moderate Skin (rabbit): 500 mg/24h - mild
ALUMINIUM	TOKSISITET	IRRITASJON
	Oral (rotte) LD50: >2000 mg/kg <sup>[1]</sup>	Ikke tilgjengelig

**Legend:** <sup>1</sup> En verdi hentet fra Europa ECHA Registrerte stoffer - Akutt giftighet 2 <sup>2</sup> Verdi hentet fra produsentens SDS Med mindre annet er spesifisert data hentet fra RTECS- Register of Toxic Effects of Chemical Substances

# Sikkerhetsdatabladet advarer spesielt mot RADS



<https://www.comet-marine.com/docs/default-source/product-documents/red-handflare-63-8488-v3-1-1-1-5-sep-2016-norway-norwegian-reach-20-oct-2017-ffx.pdf?sfvrsn=3>

<b>BARIUM NITRATE</b>	Materialet kan gi moderat øyeirritasjon og føre til betennelse. Gjentatt eller langvarig eksponering til irriteranter kan gi konjunktivitt. Materialet kan forårsake hudirritasjon etter langvarig eller gjentatt eksponering og kan ved hudkontakt gi rødhet, hevelse, blemmer, skalering og fortykkelse av huden.
	Astmalignende symptomer kan fortsette i måneder og til og med år etter at man slutter å bli utsatt for stoffet. Dette kan være på grunn av en ikke-allergisk tilstand kjent som RADS (reactive airways dysfunction syndrome : irritant-indusert astma), denne kan oppstå å ha vært utsatt for høye nivåer av svært

<b>BARIUM NITRATE</b>	Materialet kan gi moderat øyeirritasjon og føre til betennelse. Gjentatt eller langvarig eksponering til irriteranter kan gi konjunktivitt. Materialet kan forårsake hudirritasjon etter langvarig eller gjentatt eksponering og kan ved hudkontakt gi rødhet, hevelse, blemmer, skalering og fortykkelse av huden.
<b>STRONTIUM NITRATE &amp; POLYVINYL CHLORIDE</b>	Astmalignende symptomer kan fortsette i måneder og til og med år etter at man slutter å bli utsatt for stoffet. Dette kan være på grunn av en ikke-allergisk tilstand kjent som RADS (reactive airways dysfunction syndrome : irritant-indusert astma), denne kan oppstå å ha vært utsatt for høye nivåer av svært irriterende stoffer. Hovedkriteriene for RADS-diagnosen inkluderer fravær av tidligere luftveissykdom, i et ikke-atopisk individ, med plutselig innsettende og vedvarende astmalignende symptomer innen minutter eller timer etter å ha dokumentert vært utsatt for irriteranten. Et reversibelt pustemønster sett ved hjelp av spirometri, med tilstedeværelse av moderat til alvorlig bronkial hyperreaktivitet under metakolintest, og mangel på minimal lymfocytisk betennelse, uten eosinofili, er blitt inkludert i kriteriene for å diagnostisere RADS. RADS (eller astma) etter en inhalasjon av irriteranter er en uvanlig lidelse hvor ratene har sammenheng med både konsentrasjonen av og tidslengden av utsettelse for det irriterende stoffet. Industriell bronkitt, på den annen side, er en lidelse som oppstår etter å ha vært utsatt for høye konsentrasjoner av irriterende stoffer (ofte partikler), og er fullstendig reversibel etter at man ikke lenger utsettes for stoffet. Denne lidelsen karakteriseres av dyspné, hoste og slimproduksjon.

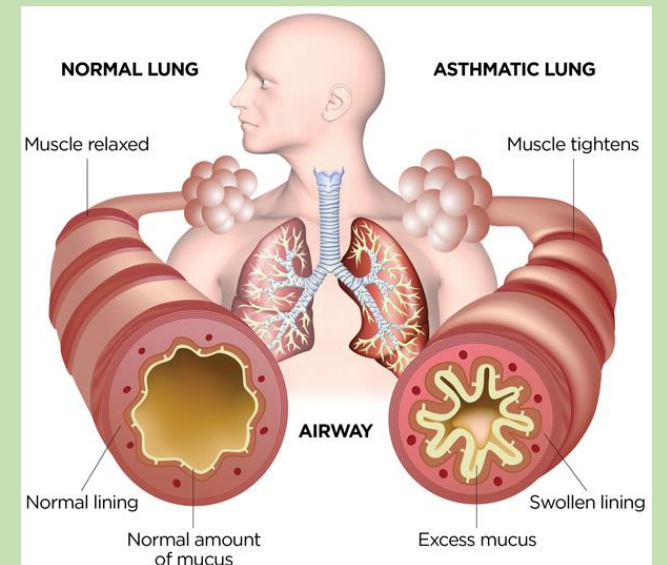


# Astma etter kortvarig høy eksponering for irritanter

## Abstract

Irritant-induced asthma affects about one-fifth of workers with the diagnosis of 'occupational asthma'. There are believed to be two types of irritant-induced asthma. Single exposure-type of irritant-induced asthma occurs when a person inhales a very high concentration of an irritant gas, vapor or fume to manifest newly-developed asthma symptoms plus nonspecific airway hyperresponsiveness within 24-hours following the exposure. In contrast, repeated exposure irritant-induced asthma evolves when a purportedly genetically predisposed individual is repeatedly exposed to non-massive levels of an irritant gas, vapor or fume (or as a mixture) over a few days, weeks or months and eventually develops clinical asthma. The treatment of RADS is similar to the treatment afforded patients suffering from an acute inhalational injury. Aerosolized bronchodilators are essential for treating acute bronchoconstriction. Likely, oral corticosteroids are not effective. There is no human study showing efficacy of oral corticosteroids in the treatment of RADS. Inhaled steroids have been found effective in reducing airway hyperresponsiveness in a case considered to be RADS.

<https://pdfs.semanticscholar.org/21d8/941adb639660fb492bede273b3a768eef097.pdf>



<https://community.aafa.org/blog/what-happens-in-your-airways-when-you-have-asthma>

# Hvilken eksponering kan forårsake astma?

- Allergisk yrkesastma skyldes vanligvis eksponering for stormolekylære stoffer, oftest proteiner. Typiske eksempler er astma blant bakere på grunn av sensibilisering mot mel og blant gårdbrukere og personer som arbeider i dyrestaller som blir allergiske mot dyreepitel. Det er beskrevet mer enn 300 ulike stoffer som kan framkalle allergisk yrkesastma. Røykere og personer med atopisk disposisjon er mest utsatt for allergisk yrkesastma.
- Ikke-allergisk astma skyldes som oftest eksponering for småmolekylære stoffer. Mange typer av plastkomponenter kan forårsake astma, og mest kjent er ulike isocyanater som er komponent i polyuretanplast. Skumgummi er en type polyuretanplast, andre typer brukes til maling og lakk med spesielle krav til beskyttelse (bil, skip, oljeinstallasjoner).

En annen viktig produktgruppe er rengjøringskjemikalier. Disse brukes som spray og har en kraftig slimhinneirriterende effekt ved inhalasjon. Sveisere som får astma reagerer på slimhinneirriterende sveiserøyk via en ikke-allergisk mekanisme.

- **En undergruppe av ikke-allergisk astma kalles RADS (Reactive Airways Dysfunction Syndrome). Dette er tilstander som skyldes ulykkespreget eksponering for slimhinneirriterende stoffer som klor, nitrogendioksid, syrer og lut, for eksempel ved lekkasjer, eller for gasser oppstått ved brann.**

<https://www.naaf.no/fokusomrader/astma/arbeidsrelatert-astma-yrkesastma/>

2015

## Astmaveileder for allmennpraksis

**Om veilederen**  
Målet med veilederen er å gi fastleger og annen helsepersonell i primærhelsetjenesten en kort oppdatering om astma og en praktisk tilnærming til pasienter med astma.

Arbeidsgruppen har bestått av følgende personer:

- Kai Håkon Carlson, barnelege
- Håkon Lasse Leira, arbeidsmedisiner
- Birger N. Lærum, lungesjefe og barnelege
- Arntulf Langhammer, allmennlege
- Anders Børren, allmennlege
- Svein Hægh Henriksen (leder), allmennlege

Arbeidet har vært finansiert av midler fra Legeforeningens fond for kvalitet og pasientsikkerhet. Vi har ikke angitt referanser i veilederen, men den er i hovedsak basert på de siste oppdateringene av GINA (Global Initiative for Asthma, [www.ginaasthma.org](http://www.ginaasthma.org)) og Practical Recommendations for Asthma ([www.esac.org/atachments/878\\_PRACTICAL%20Consensus%20Report%20PP.pdf](http://www.esac.org/atachments/878_PRACTICAL%20Consensus%20Report%20PP.pdf)).

Flere av diagrammene i veilederen er avstans fra "Global Strategy for Asthma Management and Prevention 2015", © Global Initiative for Asthma (GINA) all rights reserved.

<https://legeforeningen.no/PageFiles/235031/151130%20Astma%20veileder.pdf>

# Light and Smoke Signal

Art No. 9181600

The Light and Smoke Lifebuoy Marker produces dense orange smoke for 15 minutes and features two self contained, inversion switched, LED lights which far exceed SOLAS requirements for output and duration.

Ships are required to carry 2 markers, one mounted on each bridge wing with the brackets supplied and attached by line to a 4kg Lifebuoy. The signal is used to mark the position of a man overboard by day or night. It can be automatically deployed by releasing the attached lifebuoy, or manually activated.

The Comet Smoke Signal Art. No 9181700 is identical, except that it does not feature the lighting system, so is an orange smoke daytime marker only.

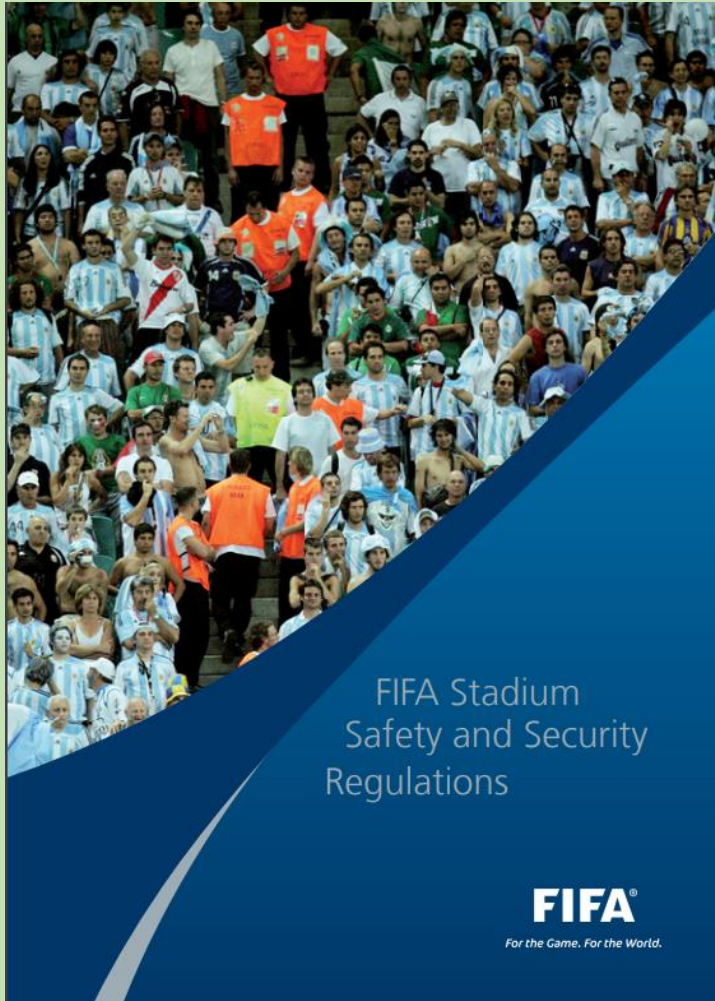




## FLOATING ORANGE SMOKE SIGNAL 3 MINUTE

<b>POLYETHYLENE</b>	polyethylene pyrolyzate
<b>N,N'-ETHYLENEBISSTEARAMIDE</b>	<p>Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound. Key criteria for the diagnosis of RADS include the absence of preceding respiratory disease, in a non-atopic individual, with abrupt onset of persistent asthma-like symptoms within minutes to hours of a documented exposure to the irritant. A reversible airflow pattern, on spirometry, with the presence of moderate to severe bronchial hyperreactivity on methacholine challenge testing and the lack of minimal lymphocytic inflammation, without eosinophilia, have also been included in the criteria for diagnosis of RADS. RADS (or asthma) following an irritating inhalation is an infrequent disorder with rates related to the concentration of and duration of exposure to the irritating substance. Industrial bronchitis, on the other hand, is a disorder that occurs as result of exposure due to high concentrations of irritating substance (often particulate in nature) and is completely reversible after exposure ceases. The disorder is characterised by dyspnea, cough and mucus production.</p> <p>The chemicals in the Fatty Nitrogen Derived (FND) Amides are generally similar in terms of physical and chemical properties, environmental fate and toxicity. Its low acute oral toxicity is well established across all subcategories by the available data and show no apparent organ specific toxicity, mutation, reproductive or developmental defects.</p> <p>Laboratory testing shows that the fatty acid amide, cocoamide DEA, causes occupational allergic contact dermatitis, and that allergy to this substance is becoming more common.</p> <p>Alkanolamides are manufactured by condensation of diethanolamine and the methyl ester of long chain fatty acids.</p>
<b>QUINIZARIN</b>	<p>The following information refers to contact allergens as a group and may not be specific to this product.</p> <p>Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact eczema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, involve antibody-mediated immune reactions. The significance of the contact allergen is not simply determined by its sensitisation potential: the distribution of the substance and the opportunities for contact with it are equally important. A weakly sensitising substance which is widely distributed can be a more important allergen than one with stronger sensitising potential with which few individuals come into contact. From a clinical point of view, substances are noteworthy if they produce an allergic test reaction in more than 1% of the persons tested.</p> <p>The material may be irritating to the eye, with prolonged contact causing inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.</p>
<b>CARBON, ACTIVATED &amp; POLYETHYLENE</b>	<p>The substance is classified by IARC as Group 3:  <b>NOT</b> classifiable as to its carcinogenicity to humans.  Evidence of carcinogenicity may be inadequate or limited in animal testing.</p>

# FIFA Stadium Safety and Security Regulations



## b) Smoking

- i) The stadium safety and security management team must ensure that if smoking is permitted inside the stadium perimeter, it does not increase the risk of fire. This can be achieved by designating smoking areas at controlled points that are equipped with suitable ashtrays and extinguishers.
- ii) The stadium safety and security management team should adopt and enforce a clear policy on smoking for both staff and spectators. The policy should be supported by suitable signs and use of the public address system to inform spectators.
- iii) In areas which are constructed of, or contain, combustible or flammable items or materials, smoking should be strictly prohibited in that vicinity.

## c) Flares and fireworks

- i) The stadium safety and security management team must adopt and enforce a clear policy prohibiting spectators from bringing flares, fireworks or other forms of pyrotechnics into the stadium. This should be clearly stated in the stadium code of conduct.
- ii) Any event activities which include pyrotechnic displays must be included in the fire risk assessment and a formal plan prepared, which must be approved by the fire services and local authorities.

## d) Voids

Voids under seating areas, or under the flooring itself, are often used for the unauthorised storage of combustible materials. They may also accumulate waste or litter. All voids should be inspected prior to an event as part of the risk assessment and made safe.

## e) Waste and litter

The accumulation of waste and litter (such as programmes and food and drink packaging) should be avoided. Sufficient waste and litter bins must be provided throughout the stadium and arrangements made for their frequent emptying throughout the match.

## c) Flares and fireworks

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