

November 19, 2020

# Chemical and Building Product Data in Pharos

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Ryan Johnson, Materials Researcher





## MISSION

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To advance human and environmental health by improving hazardous chemical transparency and inspiring product innovation



# About Pharos

A comprehensive independent database of chemicals, polymers, metals and materials

- Hazard data for >129,000 chemicals from 45 hazard lists
- Functional use data show where and why chemicals are used
- Process chemistry data identifies possible contaminants
- Common products catalog substances in building products

# Sign Up for Free

<https://pharosproject.net/>

## Search Pharos

Search

Try [Benzene](#) [50-00-0](#) [surfactant](#) [roofing](#)

### About Pharos

Pharos provides hazard, use, and exposure information on 163,894 chemicals and 151 different kinds of building products.

### Hazard Assessments

Certified GreenScreen assessments in the public domain or for sale.

### Hazard Lists

Authoritative scientific lists for health and environmental hazards and restricted substance lists.

### Common Products

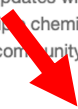
Common contents and hazards of 151 different kinds of building products.

### Data Services

Pharos data in bulk and expert analysis from HBN researchers.

### Join the Community

- Receive new updates when new hazards are added.
- Compare multiple chemicals
- Participate in community discussions



Create New Account

or

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# Account Types

links to Pharos page  
discussed on slide



BASIC	PROFESSIONAL	ENTERPRISE
<ul style="list-style-type: none"><li>• 1 User</li><li>• Hazard, exposure, and function data for 166,427 chemicals</li><li>• 1 Chemical Comparison</li><li>• Max 50 Chemicals in Comparisons</li><li>• Access to Discussion forums</li><li>• Access to Common Products ⓘ</li></ul>	<ul style="list-style-type: none"><li>• 1 User</li><li>• Hazard, exposure, and function data for 166,427 chemicals</li><li>• 10 Chemical Comparisons</li><li>• Max 500 Chemicals in Comparisons</li><li>• Access to Discussion forums</li><li>• C2C List Hazards ⓘ</li><li>• Email Notifications on Hazard Updates</li><li>• Download hazards of a chemical (example)</li><li>• Download chemicals in a compound group (example)</li><li>• Download chemicals in a hazard list (example)</li><li>• Access to Common Products (including All Contents) ⓘ</li></ul>	<ul style="list-style-type: none"><li>• Multiple Users!</li><li>• Hazard, exposure, and function data for 166,427 chemicals</li><li>• <i>Unlimited</i> Chemical Comparisons</li><li>• Max 500 Chemicals in Comparisons</li><li>• Access to Discussion forums</li><li>• C2C List Hazards ⓘ</li><li>• Email Notifications on Hazard Updates</li><li>• Download hazards of a chemical (example)</li><li>• Download chemicals in a compound group (example)</li><li>• Download chemicals in a hazard list (example)</li><li>• Access to Common Products (including All Contents) ⓘ</li><li>• Customized Data Download ⓘ</li><li>• API Access</li></ul>
	\$50.00/month	—
	\$500.00/year	Contact Us
	Choose Professional:	Choose Enterprise:
	<input type="button" value="Monthly"/> <input type="button" value="Yearly"/>	<input type="button" value="Contact Us"/>

The features and pricing are current as of November, 2020 and may change at any time. If you're viewing a recording, please check for updates at <https://pharosproject.net/plans>.



# Table of Contents

Link to  
Slide

- [7](#) Tutorials and past webinars
- [8](#) Description of GreenScreen Method
- [10](#) Chemical Hazards
  - [11](#) View a chemical's hazards
  - [13](#) Download all hazards of a chemical
  - [14](#) Restricted Substance Lists
  - [16](#) Compare chemical hazards
  - [17](#) Get an email when a chemical's hazards change
  - [18](#) View a chemical's hazards through Cradle2Cradle filter
  - [19](#) View all public GreenScreen assessments
- [20](#) Compound groups
  - [24](#) Download chemicals
  - [25](#) View list of all compound groups
- Hazard lists
  - [26](#) View all hazard lists and RSLs in Pharos
  - [28](#) Download chemicals in a list
  - [29](#) Search lists by hazard endpoint, eg cancer
- [32](#) Function data for chemicals
- Deep dive
  - [37](#) Process Chemistry
  - [38](#) HBN and External Resources
  - [39](#) PubMed Search for Hazard Data
- [40](#) Discussion forums

Link to  
Slide

- [42](#) Common Product Categories
- [44](#) Finding Common Products
- [47](#) Data in a Common Product
- [50](#) Common Contents
- [53](#) Common Contents Nested Content
- [54](#) Common Contents Sources
- [55](#) Transformation Targets
- [56](#) Comparing Hazards of Product Contents
- [59](#) All Contents
  - [61](#) All Contents Grouped by Chemical Function
- [65](#) Common Product Resources
- [69](#) Common Product Descriptions
- [73](#) Common Product Uses

# Tutorials and Webinars



## Guided tutorials and webinars help you get the most out of Pharos

Quick tutorials for specific Pharos features

- Compare hazards of multiple chemicals and track changes to their hazard profiles
- Find chemicals with a specific function (eg surfactant) or in a product category (eg. cosmetics)
- Learn about the most common building products types
- Find where a chemical is used in products
- Identify safer alternatives in common building product types
- View hazards in the new Pharos like they are displayed in the old Pharos
- View All Tours

Webinar recordings to learn more about Pharos

- Pharos: Powering a Virtual Learning Experience - [Recording and Slides](#)
- Using Pharos to Power Chemical Management - [Recording and Slides](#)
- Powering Platforms and Data Systems with Pharos - [Recording and Slides](#)



### Getting the Most Out of Pharos – Recording and Slides

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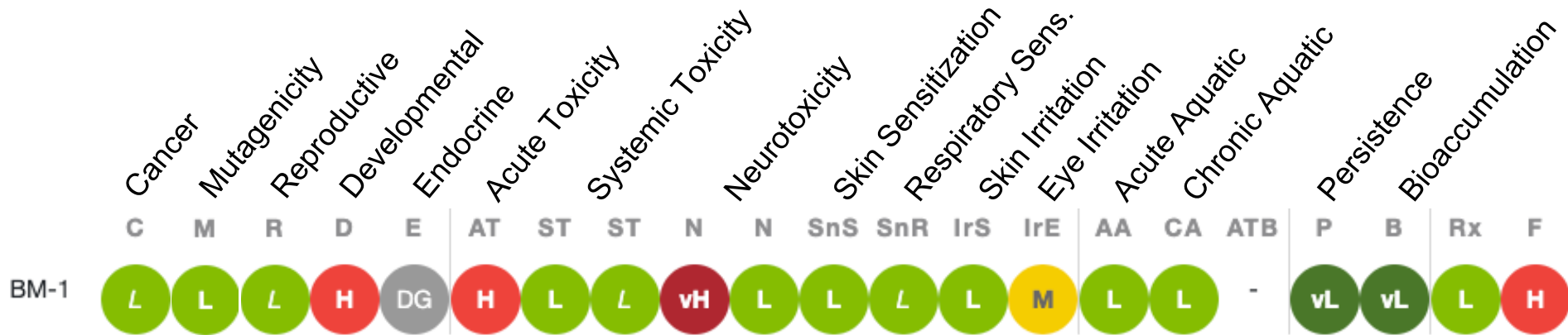
Assessments  
Projects  
Hazard Lists

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**Tutorials**  
Bio-monitoring  
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# Pharos Displays Hazards in GreenScreen® Format



BM-1

NOAEC = 1.9 mg/L air

US NIH - Reproductive & Developmental Monographs -  
Insufficient Evidence for a Conclusion

WP2uvrA (reverse mutation) (+/- S9) = negative  
Micronucleus ICR mouse, single dose, gavage:  
8410 mg/kg bw = negative

papillary lung adenomas in males  
(6/52 vs. 1/52 in the control)



# GreenScreen® Description Available in Pharos



## Overview of GreenScreen Method

### Summary

Pharos uses the **GreenScreen® for Safer Chemicals** as a framework for characterizing hazards associated with chemicals. The GreenScreen is a transparent, open standard for chemical hazard assessment designed to identify chemicals of high concern and safer alternatives. The GreenScreen:

- characterizes the **hazard level** of substances for 20 human and environmental health endpoints and
- **benchmarks chemicals** on a 4 point scale from highest to lowest concern (Benchmark 1 to 4)

It prioritizes the elimination of substances with a high hazard of cancer, mutagenicity, reproductive or developmental toxicity or endocrine disruption or are persistent bioaccumulative toxicants (PBTs). Its thresholds and priorities are aligned with GHS, REACH and many other international protocols identifying chemicals of high concern.

The **GreenScreen List Translator (GSLT)** is a tool for evaluating substances based on hazard lists from a range of governmental and professional scientific bodies. All chemicals in Pharos are automatically screened under this protocol and characterized for hazard level for each list's relevant endpoint(s). Chemicals identified on hazard lists which meet the GreenScreen criteria for highest concern are scored as LT-1. An LT-P1 score indicates a listing with a significant possibility of meeting the high concern criteria. While LT scores indicate chemicals known to have high hazard, the lack of an LT-1

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System Description

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Compound Groups

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# Chemical Hazards: Search for a Chemical



CHEMICALS / COMMON PRODUCTS / RESOURCES

71-43-2	<i>Benzene</i>
696-99-1	<i>(Benzenemethanamine)trifluoroboron</i>
1386394-92-8	<i>(Benzenemethanamine)trifluoroboron (primary CASRN is 696-99-1)</i>
879630-66-7	<i>(Benzenemethanamine)trifluoroboron (primary CASRN is 696-99-1)</i>
20255-41-8	<i>(Benzenemethanamine)trifluoroboron (primary CASRN is 696-99-1)</i>
110881-46-4	<i>(Benzenemethanamine)trifluoroboron (primary CASRN is 696-99-1)</i>
5107-58-4	<i>[benzene-1,2,4,5-tetrayltetrakis(carbonyloxy)]tetrakis[tributylstannane]</i>
68855-24-3	<i>BENZENE (C14-C30)ALKYLATE</i>
1172022-22-8	<i>Benzene (primary CASRN is 71-43-2)</i>



# Chemical Hazards: View Hazards



Pharos

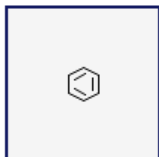
Search...

Comparisons

Common Products

Discussions

Account



71-43-2

**Benzene**

ALSO CALLED [174973-66-1] Benzene (primary CASRN is 71-43-2), [54682-86-9] Benzene (primary CASRN is 71-43-2), [...]

View all synonyms (53)

Share Profile



Hazards

Properties

Functional Uses

Process Chemistry

Resources

All Hazards View

Show List Hazard Summary

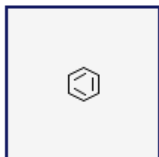
Show PubMed Results

Add to Comparison

GS Score	Group I Human					Group II and II* Human							Ecotox			Fate		Physical		Mult	Non-GS			
	C	M	R	D	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PBT	GW
GreenScreen Assessment																								
BM-1	H	H	H	M	M	L	H	H	M	H	L	L	H	H	H	H	-	vL	vL	L	H	-	-	-
All Hazards																								
LT-1	H	H	H	H	H-M	vH	-	H	pC	vH-M	pC	M	H	H	H	-	M	vH-H	pC	-	H	vH	-	-



# Chemical Hazards: View List-Based Hazards



71-43-2

## Benzene

ALSO CALLED [174973-66-1] Benzene (primary CASRN is 71-43-2), [54682-86-9] Benzene (primary CASRN is 71-43-2), [...]

View all synonyms (53)

Share Profile



Hazards

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### All Hazards View

Show List Hazard Summary

Show PubMed Results

Add to Comparison

GS Score	Group I Human					Group II and II* Human								Ecotox			Fate		Physical		Mult	Non-GS			
	C	M	R	D	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PBT	GW	
GreenScreen Assessment	BM-1	H	H	H	M	M	L	H	H	M	H	L	L	H	H	H	H	-	vL	vL	L	H	-	-	-
All Hazards	LT-1	H	H	H	H	H-M	vH	-	H	pC	vH-M	pC	M	H	H	H	-	M	vH-H	pC	-	H	vH	-	-



# Chemical Hazards: Download all Hazards of a Chemical

All Hazards

LT-1



## Hazard Lists

Professional Feature 

 Download Lists

ENDPOINT	HAZARD LEVEL	GS SCORE	LIST NAME	HAZARD DESCRIPTION	OTHER LISTS
Carcinogenicity		LT-1	CA EPA - Prop 65	Carcinogen	
Mutagenicity/Genotoxicity		LT-1	EU - Annex VI CMRs	Mutagen - Category 1B	
Reproductive Toxicity		LT-1	CA EPA - Prop 65	Reproductive Toxicity - Male	
Developmental Toxicity incl. developmental neurotoxicity		LT-1	CA EPA - Prop 65	Developmental toxicity	
Endocrine Activity		LT-P1	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor	
Acute Mammalian Toxicity		LT- UNK	GHS - New Zealand	6.1B (dermal) - Acutely toxic	

# Chemical Hazards: Restricted Substance Lists

All Hazards

LT-1



## Hazard Lists

Professional Feature

Download Lists

ENDPOINT	HAZARD LEVEL	GS SCORE	LIST NAME	HAZARD DESCRIPTION	OTHER LISTS
Carcinogenicity	H	LT-1	CA EPA - Prop 65	Carcinogen	+17
Mutagenicity/Genotoxicity	H	LT-1	EU - Annex VI CMRs	Mutagen - Category 1B	+9
Reproductive Toxicity	H	LT-1	CA EPA - Prop 65	Reproductive Toxicity - Male	+2
Developmental Toxicity incl. developmental neurotoxicity	H	LT-1	CA EPA - Prop 65	Developmental toxicity	
Endocrine Activity	H-M	LT-P1	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor	
Acute Mammalian Toxicity	vH	LT- UNK	GHS - New Zealand	6.1B (dermal) - Acutely toxic	+7

# Chemical Hazards: Restricted Substance Lists

Systemic Toxicity/Organ Effects (Single Exposure - Aspiration Hazard)



LT-  
UNK

EU - GHS (H-Statements)

H304 - May be fatal if swallowed and enters airways

+1

Carcinogenicity, Mutagenicity/Genotoxicity  
Reproductive Toxicity,  
Developmental Toxicity,  
Acute Mammalian Toxicity,  
or System Toxicity/Organ Effects.



LT-  
UNK

Québec CSST - WHMIS 1988

Class D2A - Very toxic material causing other toxic effects

+1

## Restricted Substance Lists (21)

- BIFMA - e3/level Annex B list of chemicals: 2019 Substance of Concern List
- BIFMA - e3/level Annex B list of chemicals: V3 2014 Substance of Concern List
- C2C Certified™ - v4 RSL: Children's Products
- C2C Certified™ - v4 RSL: Core Restrictions
- C2C Certified™ - v4 RSL: Formulated Consumer Products
- CA SCP - Candidate Chemicals: Candidate Chemical List
- CPA - Chemical Footprint: CoHC List (non SVHC)
- EU - Cosmetics Regulation: Annex II - Prohibited Substances
- EU - PACT-RMOA Substances: Substances selected for RMOA or hazard assessment
- EU - REACH Annex XVII non-CMRs: Substances restricted under REACH
- Health Canada - Cosmetic Ingredient Hotlist: Ingredients that are Prohibited for Use in Cosmetic Products



# Chemical Hazards: Compare Hazards

All Hazards View ▾

Q Add chemical...

↑ Add from file...

Chemical	GS	Group I Human					Group II and II* Human								Ecotox			Fate		Physical		Mult		
		C	M	R	D	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PB1
✗ Benzalkonium chloride 8001-54-5	LT-P1	-	-	-	-	-	vH	-	-	-	-	H	H-M	vH	vH	vH	-	M	-	-	-	-	H	-
✗ Hydrogen peroxide 7722-84-1	LT-UNK	M	-	-	M-L	-	M	M	-	pC	-	-	-	vH	vH	vH	-	M	-	-	vH	pC	vH	-
✗ Sodium hypochlorite 7681-52-9	LT-P1	-	-	-	-	-	L	M	-	pC	-	-	H-M	vH	vH	vH	-	-	-	-	-	H	-	M
✗ Citric Acid (primary CASRN is 77-92-9) 12262-73-6	LT-UNK	-	-	-	M-L	-	L	M	-	-	-	-	-	H	vH	-	-	-	-	-	-	-	-	U
✗ Chlorine dioxide 10049-04-4	LT-P1	H-L	-	H	H-L	H-M	vH	-	-	-	-	-	-	vH	vH	vH	-	H	-	-	H	-	vH	-
✗ L-Lactic acid 79-33-4	LT-UNK	-	-	-	-	-	M	pC	-	-	-	-	-	vH	vH	-	-	M	-	-	-	-	U	-
✗ THYMOL 89-83-8	LT-P1	-	-	-	-	-	M	-	-	-	-	-	M	vH	vH	H	-	M	-	-	-	-	U	-
✗ Hypochlorous acid 7790-92-3	NoGS	-	-	-	-	-	pC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
✗ Sodium chlorite 7758-19-2	LT-P1	H-L	M	H	-	H-M	vH	pC	M	-	-	-	-	vH	vH	vH	-	H	-	-	H	-	H	-
✗ Ethanol 64-17-5	BM-2	L	L	L	M	DG	L	M	L	M	M	L	DG	L	H	L	L	-	L	vL	L	H	-	-



# Chemical Hazards: Compare Hazards



< Back to Comparisons

## Disinfectants that meet EPA's criteria for use against SARS-CoV-2



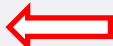
This list of active ingredients was adapted from the list of disinfectants provided by the US EPA at <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>.

For this comparison, the quaternary ammonium compound...

[View full group description](#)

Sharing

Public



Owner

Michel Dedeo

# of Chemicals

36

Receive Hazard Updates?

[View all updates \(90\)](#)

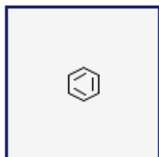
[View Comparison FAQ](#)

[Export to Excel](#)

Professional Feature



# Chemical Hazards: View hazards through Cradle2Cradle filter



71-43-2

## Benzene

ALSO CALLED [174973-66-1] Benzene (primary CASRN is 71-43-2), [54682-86-9] Benzene (primary CASRN is 71-43-2), [...]

View all synonyms (53)

Share Profile



Hazards

Properties

Functional Uses

Process Chemistry

Resources

### C2C Hazards View

Professional Feature

- All Hazards ✓
- GreenScreen Hazards Only
- Pharos Hazards
- C2C Hazards (premium)

### Certified™ List Hazards

do these colors mean?

C2C Assessment

				Acute and Chronic Tox.				Acute Aquatic Tox.				Chronic Aquatic Tox.				T	P	B	Climate			
C	M	R+D	E	O	D	I	O/D/I	N	IrS+IrE	SnS+SnR	Fish	Inv.	Alg.	Any	Fish	Inv.	Alg.	Any				
R	R	R	R/Y	R	?	?	R	R/Y	Y	?	-	-	-	R	?	?	?	R	?	R/Y	?	G



# Chemical Hazards: Browse GreenScreen Assessments

Search assessments by name or CASRN

Search

## Assessments (918)

ASSESSMENT TITLE	CASRN	DATE	PROFILER	BENCHMARK	AVAILABILITY
Inorganic Lead Compounds Including Lead Acetate, Lead Phosphate, and Lead Subacetate		03/20/20	ToxServices LLC	1	Free
Benzenesulfonamide, 4-methyl-N-[[[3-[[4-methylphenyl)sulfonyl]oxy]phenyl]amino]carbonyl]-)	232938-43-1	06/01/20	ToxServices LLC	2	Free

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# Compound Groups: Origins and Definition

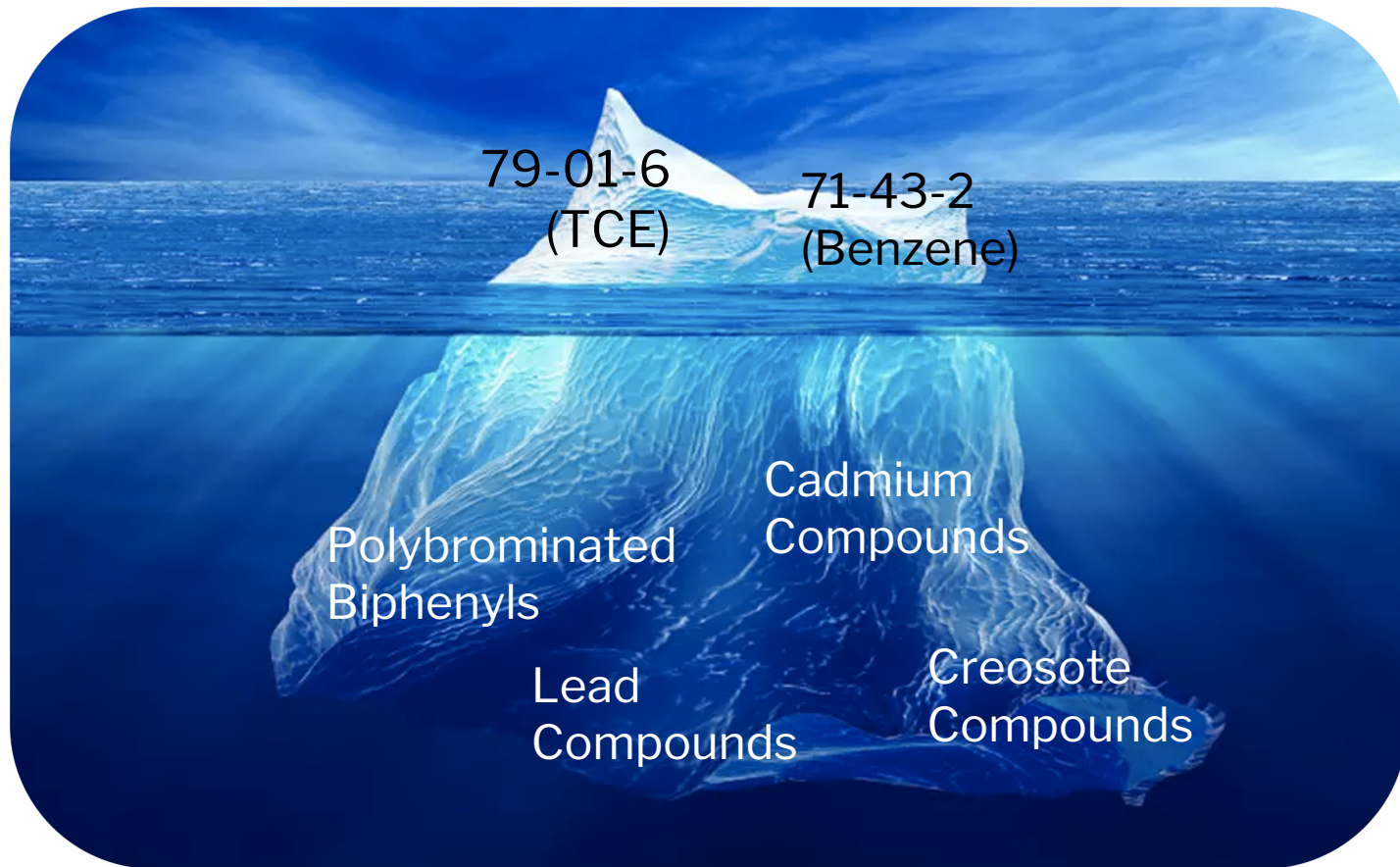
Chemicals with a similar structure or composition  
that share a hazard

-12-

Proposition 65 List of Chemicals

<u>Chemical</u>	<u>Type of Toxicity</u>	<u>CAS No.</u>	<u>Date Listed</u>
Lasiocarpine	cancer	303-34-4	April 1, 1988
Lead	developmental, female, male	---	February 27, 1987
Lead and lead compounds	cancer	---	October 1, 1992
Lead acetate	cancer	301-04-2	January 1, 1988
Lead phosphate	cancer	7446-27-7	April 1, 1988
Lead subacetate	cancer	1335-32-6	October 1, 1989
Leather dust	cancer	---	April 29, 2011
Leuprolide acetate	developmental, female, male	74381-53-6	August 26, 1997

# Compound Groups: Importance to List-based Screening



Prop 65 has ~900 chemicals listed explicitly

Prop 65 has 4200 chemicals in Pharos compound groups

Many only flagged as hazardous due to group membership

# Compound Groups: Importance to List-based Screening



	A	B	C	D
1	SKU	Ingredient CAS	Ingredient Name	Prop65
2	HT-CC-SMA-SF	9002-88-4	Polyethylene	
3	HT-CC-SMA-SF	21645-51-2	Aluminum hydroxide, dried	
4	HT-CC-SMA-SF	24993-04-2	Nylon 6:66	
5	HT-CC-SMA-SF	65997-17-3	Fiberglass	
6	HT-CC-SMA-SF	1317-65-3	Limestone	
7	HT-CC-SMA-SF	13814-96-5	Lead fluoroborate	▶
8	WC-JT-MD-PP	25038-54-4	Policapram	
9	WC-JT-MD-PP	9002-88-4	Polyethylene	
10	WC-JT-MD-PP	21645-51-2	Aluminum hydroxide, dried	
11	WC-JT-MD-PP	65997-17-3	Fiberglass	
12	WC-JT-MD-PP	1317-65-3	Limestone	
13	WC-JT-MD-PP	598-63-0	Lead carbonate	▶
14	WC-JT-MD-PP	287-24-4	PERFLUOROHXANOIC ACID (PFHxA, C-6)	
19994	HT-CC-LRG-SF	9003-07-0	Polypropylene	
19995	HT-CC-LRG-SF	13463-67-7	Titanium dioxide	
19996	HT-CC-LRG-SF	65997-17-3	Fiberglass	
19997	HT-CC-LRG-SF	1317-65-3	Limestone	
19998	HT-CC-LRG-SF	24993-04-2	Nylon 6:66	
19999	HT-CC-LRG-SF	1309-60-0	Lead dioxide	▶
20000	HT-CC-LRG-SF	25038-59-9	Polyethylene Terephthalate (PET)	

# Compound Groups: Description and Hazards



## LEAD COMPOUNDS

Compound Group T

Share Group



This compound group is defined by the SMILES string '[Pb]'. For more information on SMILES, see [https://en.wikipedia.org/wiki/Simplified\\_molecular-...](https://en.wikipedia.org/wiki/Simplified_molecular-...)

[View full group definition](#)

Hazards

Properties

Resources

### All Hazards View

Show PubMed Results

Add to Comparison

GS Score	Group I Human					Group II and II* Human								Ecotox			Fate		Physical		Non-GSLT				
	C	M	R	D	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PBT	GW	O
All Hazards	LT-1	H	-	H	H-M	-	M	-	-	H	-	-	-	-	vH	-	-	pC	pC	-	-	M	U	-	-

### Hazard Lists

Download Lists



# Compound Groups: Members

Group Members (1,002)

Professional Feature 

 Download Group

CASRN	CHEMICAL NAME
69011-06-9	(1,2-BENZENEDICARBOXYLATO(2-))DIOXOTRILEAD
11113-70-5	Silicic acid, chromium lead salt
17976-43-1	Dibasic lead phthalate
301-04-2	LEAD ACETATE
6080-56-4	LEAD ACETATE, TRIHYDRATE

[Show all group members...](#)

## Related Groups

- Toxic Heavy Metals

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# Compound Groups: Browse List

## Compound Groups

Compound groups are groups of chemicals that share structural or chemical features. In most cases, hazard lists will assign hazards to individual substances. Compound groups are useful because in some cases, lists will instead identify a group of structurally similar compounds (such as lead compounds) as all having the same hazard. The Pharos staff is in the process of establishing and populating compound groups, and associating warnings from the hazard lists with them. The table below indicates how each compound group is populated, and what is the status of its population.

COMPOUND GROUP NAME	POPULATION STATUS	DATE POPULATED	DESCRIPTION	PROFILE TYPE	# MEMBERS	# HAZARD LIST ENTRIES
Diocetyltn compounds	in progress		This compound group is defined by the SMILES string ' <chem>CCCCCCC[Sn]CCCCCCC</chem> '. For more information on SMILES, see <a href="https://en.wikipedia.org/wiki/Simplified_molecular_input_line_entry_system">https://en.wikipedia.org/wiki/Simplified_molecular_input_line_entry_system</a> .	structure	32	1
DIOXINS & DIOXIN-LIKE COMPOUNDS	incomplete		This compound group has not yet been assigned a structural definition.	ther	12	1
Diphenyltn derivatives	complete	07/26/18	This compound group is defined by the SMILES string ' <chem>[CH]1=[CH][CH]=C([CH]=[CH]1)[Sn](C2=[CH][CH]=[CH][CH]=[CH]2)</chem> '. For more information on SMILES, see <a href="#">https://en.wikipedia.org/wiki/Simplified_molecular_input_line_entry_system</a> .	structure	153	1

# Hazard Lists: Browse Lists

HBN uses access to authoritative scientific lists for specific human and environmental health hazards and restricted substance lists to identify key health and environmental information.

[View All Lists](#) ▾

Filter Lists

NAME		AGENCY
<a href="#">AOEC - Asthmagens</a> Chemical Hazard List	The AOEC is a non-profit organization dedicated to "[facilitating] the prevention...	Association of Occupational and Environmental Clinics (AOEC)
<a href="#">BIFMA - e3/level Annex B list of chemicals</a> Chemical Hazard List	The BIFMA Level Sustainability Certification for Furniture provides credit to applicants...	Business and Institutional Furniture Manufacturers Association (BIFMA)
<a href="#">Boyes - Neurotoxicants</a> Chemical Hazard List	This is a list of chemicals for which there exist occupational exposure	Pattys Toxicology: author William K Boyes

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[Hazard Lists](#)

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[Case Studies](#)



# Hazard Lists: List Details

## Boyes - Neurotoxicants



Chemicals with occupational exposure standards based on nervous system effects (Boyes 2001)

This is a list of chemicals for which there exist occupational exposure standards based on known...

[View full description](#)

Agency: Pattys Toxicology: author William K Boyes  
Updated: 2017-12-24  
Website: [onlinelibrary.wiley.com/doi/10.1002/0471435139.tox025.pub2/abstract](https://onlinelibrary.wiley.com/doi/10.1002/0471435139.tox025.pub2/abstract)

[Hazards](#) Chemicals on List (2,421)

ENDPOINT	HAZARD RATING AND DESCRIPTION	GS SCORE	HPD	C2C
Neurotoxicity-Repeated Exposure	 Neurotoxic	LT-UNK		Neurotoxicity (Red, Yellow, or Green)
Developmental Toxicity incl. developmental neurotoxicity	 <b>Developmental Neurotoxicity</b>	LT-UNK		Reproductive Toxicity (Repro + Dev) (Red, Yellow, or Green)



# Hazard Lists: Chemicals in List

## Boyes - Neurotoxicants

Chemicals with occupational exposure standards based on nervous system effects (Boyes 2001)

This is a list of chemicals for which there exist occupational exposure standards based on known...

[View full description](#)

Agency

Pattys Toxicology: author William K Boyes

Updated

2017-12-24

Website

[onlinelibrary.wiley.com/doi/10.1002/0471435139.tox025.pub2/abstract](https://onlinelibrary.wiley.com/doi/10.1002/0471435139.tox025.pub2/abstract)

[Hazards](#)

[Chemicals on List \(1,252\)](#)

[Filter by Hazard](#)

Professional Feature 

[Download List](#)

**Developmental Neurotoxicity**

CASRN

CHEMICAL NAME

68901-12-2

.alpha.-D-Glucopyranose, 1-(dihydrogen phosphate), lead salt

69011-06-9

(1,2-BENZENEDICARBOXYLATO(2-))DIOXOTRILEAD



# Hazard Lists: Search Lists by Hazard Endpoint

## Boyes - Neurotoxicants

Chemicals with occupational exposure standards based on nervous system effects (Boyes 2001)

This is a list of chemicals for which there exist occupational exposure standards based on known...

[View full description](#)

Agency

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[Hazards](#)

[Chemicals on List \(2,421\)](#)

ENDPOINT	HAZARD RATING AND DESCRIPTION	GS SCORE	HPD	C2C
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Developmental Toxicity incl. developmental neurotoxicity	 Developmental Neurotoxicity	LT-UNK		Reproductive Toxicity (Repro + Dev) (Red, Yellow, or Green)



# Hazard Lists: Search Lists by Hazard Endpoint



Group I Human			Group II and II* Human						Ecotox			Fate		Physical		Mult	Non-GSLT								
C	M	R	<b>D</b>	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PBT	GW	O	Other

## Developmental Toxicity incl. developmental neurotoxicity

**Ability to cause harm to the developing child including birth defects, low birth weight and biological or behavioral problems that appear as the child grows.**

GHS Definition (6th edition):

Included in [REPRODUCTIVE TOXICITY]. Adverse effects on development of the offspring. Taken in its widest sense, developmental toxicity includes any effect which interferes with normal development of the conceptus, either before or after birth, and resulting from exposure of either parent prior to conception, or exposure of the developing offspring during prenatal development, or postnatally, to the time of sexual maturation. However, it is considered that classification under the heading of developmental toxicity is primarily intended to provide a hazard warning for pregnant women and men and women of reproductive capacity. Therefore, for pragmatic purposes of classification, developmental toxicity essentially means adverse effects induced during pregnancy, or as a result of parental exposure. These effects can be manifested at any point in the life span of the organism. The major manifestations of developmental toxicity include death of the developing organism, structural abnormality, altered growth and functional deficiency.







*Interested in a list of all chemicals that affect this endpoint? [Request a quote.](#)*



# Hazard Lists: Search Lists by Hazard Endpoint

Interested in a list of all chemicals that affect this endpoint? [Request a quote.](#)

## Hazard lists affecting this endpoint

HAZARD LIST	HAZARD RATING AND DESCRIPTION	GS SCORE	HPD	C2C
CA EPA - Prop 65	 Developmental toxicity	LT-1	Priority List	Reproductive Toxicity (Repro + Dev) (Red)
EU - GHS (H-Statements)	 H360D - May damage the unborn child	LT-1	Priority List	Reproductive Toxicity (Repro + Dev) (Red)
EU - GHS (H-Statements)	 H362 - May cause harm to breast-fed children	LT-1	Priority List	Reproductive Toxicity (Repro + Dev) (Red)
US NIH - Reproductive & Developmental Monographs	 Clear Evidence of Adverse Effects - Developmental Toxicity	LT-1	Priority List	Reproductive Toxicity (Repro + Dev) (Red, Yellow, or Green)
EU - GHS (H-Statements)	 H360Df - May damage the unborn child. Suspected of damaging fertility	LT-1	Priority List	Reproductive Toxicity (Repro + Dev) (Red)
EU - GHS (H-	 H360Fd - May damage fertility.	LT-1	Priority	Reproductive

# Functional Use Data: Search by Function



Pharos

🔍 Search...

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[Common Products](#)

[Discussions](#)

[Account](#) ▾



Search bar accepts functions as well as chemicals!



# Functional Use Data: Search by Function



Pharos

Q solvent



Comparisons

Common Products

Discussions

Account



CHEMICALS / COMMON PRODUCTS / RESOURCES

110157-96-5

*Solvent* blue 132

6408-50-0

*Solvent* Blue 63

95660-37-0

*Solvent* Blue 63 (primary CASRN is 6408-50-0)

97929-53-8

*Solvent* Blue 63 (primary CASRN is 6408-50-0)

64696-98-6

*Solvent* brown 53

65996-79-4

SOLVENT NAPHTHA (COAL)

Compound Group

*Solvent* naphtha (coal), and related compounds

85536-19-2

SOLVENT NAPHTHA (COAL), COUMARONE-STYRENE CONTG.

85536-17-0

SOLVENT NAPHTHA (COAL), LIGHT

68132-02-5

*Solvent* naphtha (coal), polymd.

[View All Chemical Results...](#)

[Common Product Results...](#)

Enter function and press Enter/Return

# Functional Use Data: Search by Function



Pharos

Q solvent



Comparisons

Common Products

Discussions

Account



Q solvent

Search

Chemicals (423)

Common Products (3)

Functional Uses (3323)

Other Resources (7)

Add to Comparison

Only show profiles with full assessments

<input type="checkbox"/> CASRN	CHEMICAL	GREENSCREEN SCORE
<input type="checkbox"/> 110157-96-5	Solvent blue 132	NoGS
<input type="checkbox"/> 6408-50-0	Solvent Blue 63	LT-P1
<input type="checkbox"/> 95660-37-0	Solvent Blue 63 (primary CASRN is 6408-50-0)	LT-P1
<input type="checkbox"/> 97929-53-8	Solvent Blue 63 (primary CASRN is 6408-50-0)	LT-P1
<input type="checkbox"/> 64696-98-6	Solvent brown 53	NoGS
<input type="checkbox"/> 65996-79-4	SOLVENT NAPHTHA (COAL)	LT-1
<input type="checkbox"/> <b>Compound Group</b>	Solvent naphtha (coal), and related compounds	NoGS
<input type="checkbox"/> 85536-19-2	SOLVENT NAPHTHA (COAL), COUMARONE-STYRENE CONTG.	LT-1
<input type="checkbox"/> 85536-17-0	SOLVENT NAPHTHA (COAL), LIGHT	LT-1



# Functional Use Data: Search by Function



Chemicals (423)

Common Products (3)

Functional Uses (3323)

Other Resources (7)

Add to Comparison

FAQ

CHEMICAL	FUNCTION	PRODUCT TYPE	PRODUCT NAME	SOURCE
<input type="checkbox"/> DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN) 117-81-7	solvent	Jewellery Craft Materials	Jewellery Craft Materials (Excelligence Learning Corp)	
<input type="checkbox"/> Benzene 71-43-2	solvent	Jewellery Craft Materials	Jewellery Craft Materials (Excelligence Learning Corp)	
<input type="checkbox"/> Ethylbenzene 100-41-4	solvent	Artists Painting/Drawing Supplies Variety Packs	Artists Painting/Drawing Supplies Variety Packs (Disney Merchandise Sourcing & Distribution, LLC)	
<input type="checkbox"/> Butyl alcohol 71-36-3	solvent	Artists Accessories	Artists Accessories (Greenbrier International Inc.)	



# Functional Use Data: Functions of a Single Chemical

Pharos

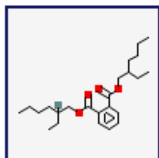
Search...

Comparisons

Common Products

Discussions

Account



117-81-7

**DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN)** T

ALSO CALLED [109630-52-6] DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN) (primary CASRN is 117-81-7), [126639-...

[View all synonyms \(132\)](#)

Share Profile



Hazards

Properties

**Functional Uses**

Process Chemistry

Resources

## Functional Uses (898) [FAQ](#) i

FUNCTION	PRODUCT TYPE	PRODUCT NAME	PERCENTAGE	SOURCE
Phthalate	Synthetic Turf (Tufted Polyolefin Backing, Crumb Rubber + Sand Infill)	Common Product	<0.01%	<span>i</span>
Phthalate	Tire-derived Crumb Rubber	Common Product	0.00 - 0.01%	<span>i</span>
plasticizer	Closed Cell Elastomeric Foam Pipe Insulation	Common Product	12.51%	<span>i</span>
plasticizer	Cork Flooring (Floating Floor)	Common Product		<span>i</span>

# Deep Dive: Process Chemistry



Pharos

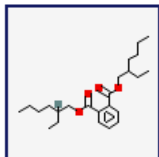
Search...

Comparisons

Common Products

Discussions

Account



117-81-7

**DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN)** T

ALSO CALLED [109630-52-6] DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN) (primary CASRN is 117-81-7), [126639-...

[View all synonyms \(132\)](#)

Share Profile



Hazards

Properties

Functional Uses

Process Chemistry

Resources

## Known or Potential Residuals

CASRN	NAME	GS SCORE	TYPE	FREQUENCY	% WT	SOURCES
7664-93-9	Sulfuric acid	LT-P1	Catalyst (homogeneous/ unstructured/ unknown)	Frequent	Unknown	
104-15-4	p-Toluenesulfonic acid	LT-UNK	Catalyst (homogeneous/ unstructured/ unknown)	Frequent	Unknown	



# Deep Dive: HBN and External Resources



Pharos

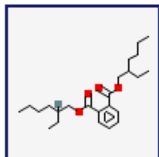
Search...

Comparisons

Common Products

Discussions

Account



117-81-7

**DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN)** T

ALSO CALLED [15495-94-0] DI(2-ETHYLHEXYL)PHTHALATE (DEHP) (primary CASRN) (primary CASRN is 117-81-7), [8033-53-...

[View all synonyms \(124\)](#)

Share Profile



[Hazards](#)

[Properties](#)

[Functional Uses](#)

[Process Chemistry](#)

[Resources](#)

## HBN Resources (12)

TYPE	TITLE
Report	<a href="#">Asthmagens in Building Materials: The Problem &amp; Solutions</a>
Report	<a href="#">Avoiding Contaminants in Tire-Derived Flooring</a>
Report	<a href="#">Eliminating Toxics in Carpet: Lessons for the Future of Recycling</a>
Report	<a href="#">Environmental Impacts of Polyvinyl Chloride Building Materials</a>
Report	<a href="#">Full Disclosure Required: A Strategy to Prevent Asthma Through Building Product Selection</a>



# Deep Dive: PubMed Search for Hazard Data



Pharos

Search...

Comparisons

Common Products

Discussions

Account



10058-23-8

## Potassium peroxymonosulfuric acid

ALSO CALLED 156736-98-0, 219538-99-5, Monopotassium peroxymonosulfurate, Potassium hydrogenperoxomonosulphate, P...

View all synonyms (6)

Share Profile



Hazards

Properties

Functional Uses

Resources

### All Hazards View

Show PubMed Results

Request Assessment

Add to Comparison

GS Score	Group I Human					Group II and II* Human						Ecotox			Fate		Physical		Mult	Non-GSLT						
	C	M	R	D	E	AT	ST	ST	N	N	SnS	SnR	IrS	IrE	AA	CA	ATB	P	B	Rx	F	Mult	PBT	GW	O	C
All Hazards	LT-UNK	-	-	-	-	pC	-	-	-	-	-	-	-	H	-	-	-	vH-H	-	M	-	U	-	-	-	-

### Hazard Lists

Download Lists

# Discussion Forums: Access a Community of Experts



All Discussions

141

Announcements

38

Community Discussion

16

Feature Requests / Ideas

33

Chemical Discussions

50

Building Materials

4

Unread Posts

## SEARCH DISCUSSIONS

Select a tag or type to search..

[80-05-7] BISPHENOL A (BPA)

[25495-98-1] HEXABROMOCYCLODECANE

(HBCD)

PHTHALATES (orthophthalates)

[1314-13-0] ZINC OXIDE

## All Discussions

+ New Discussion

NEW

### Polyvinyl chloride fitness ball

Chemical Discussions



Levente Szász, Levente Szasz

2 days ago

Hello, It turned out that the fitness ball which I have bought is made of 100 % PVC. I know that this material is hazardous. But is it risky to use it if it is the material of a sports tool? Also for sitting on in the office on it. Thank you!

3 replies

Reply

NEW

### Hydrofluoroolefin

Chemical Discussions



Mary Dickinson, Reg. Sustainable Design Leader / Co-Director Material Performance Lab, Perkins and Will

6 days ago

Hi Michelle - We understand that HFO's are replacing HCFC's in insulations and we're trying to verify the impact of this substitution. Can you please share hazard info that you are aware of?With appreciaiton, Mary

Hydrofluoroolefins (HFOs)

2 replies

Reply





November 19, 2020

Beyond Product Content

# Common Product Profiles in Pharos



# Common Product Categories

- Countertops
- Doors, Cabinetry, & Millwork
- Flooring
- Insulation
- Paints/Coatings
- Exterior Building Membranes
- Sealants
- Floor/Roof Construction Components
- Foundations
- Drywall Accessories
- Others



# Common Products

[About Common Products](#)

Common Products are profiles that list the substances that are most commonly present in a given product type (e.g., vinyl composition tile). We use these profiles to provide building product guidance on our sister website, [HomeFree](#).

▼ Filter by product name or MasterFormat classification

COMMON PRODUCT NAME	MASTERFORMAT
Acoustical Ceiling Panels (FGD Gypsum)	09 51 13 Acoustical Panel Ceilings
Acoustical Ceiling Panels (mineral fiber)	09 51 13 Acoustical Panel Ceilings
Acoustical Ceiling Panels (Natural Gypsum)	09 51 13 Acoustical Panel Ceilings
Acrylic Flooring Adhesive	09 60 00 Flooring
Acrylic Latex Sealant	07 92 13 Elastomeric Joint Sealants
Aluminum Primer	09 96 00 High-Performance Coatings 09 96 56 Epoxy Coatings
Anodized Aluminum Curtainwall Extrusion	08 40 00 Entrances, Storefronts, and Curtain Walls 08 44 13 Glazed Aluminum Curtain Walls
ASJ-Faced Fiberglass Board Insulation	07 21 13.16 Fibrous Board Insulation





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Acrylic Flooring Adhesive	09 60 00 Flooring
Acrylic Latex Sealant	07 92 13 Elastomeric Joint Sealants
Aluminum Primer	09 96 00 High-Performance Coatings 09 96 56 Epoxy Coatings
Anodized Aluminum Curtainwall Extrusion	08 40 00 Entrances, Storefronts, and Curtain Walls 08 44 13 Glazed Aluminum Curtain Walls
ASJ-Faced Fiberglass Board Insulation	07 21 13.16 Fibrous Board Insulation





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# Common Products

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Fiberglass board

COMMON PRODUCT NAME	MASTERFORMAT
ASJ-Faced Fiberglass Board Insulation	07 21 13.16 Fibrous Board Insulation 09 81 13 Acoustic Board Insulation 23 07 00 HVAC Insulation 23 07 13 Duct Insulation 23 07 16 HVAC Equipment Insulation
Fiberglass Duct Board Insulation	23 07 00 HVAC Insulation 23 07 13 Duct Insulation





## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

*This information reflects our best understanding of product composition in 2019.*

Fiberglass board insulation is made from inorganic glass fibers that are typically held together with a phenol-formaldehyde binder, and formed into rigid rectangular boards. Up to 53% of the product comes from recycled content. It is frequently...

[More about ASJ-Faced Fiberglass Board Insulation](#)

[About Common Products](#)

[Common Contents](#)
[All Contents](#)
[Process Chemistry](#)
[Resources](#)

Nested View ▾

Add to Comparison ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		<input type="checkbox"/>
▶ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		<input type="checkbox"/>
Polyethylene Terephthalate (PET) 25038-59-9	1.00%	1.00%	Adhesive	LT-UNK		<input type="checkbox"/>



## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

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[More about ASJ-Faced Fiberglass Board Insulation](#)

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[Process Chemistry](#)
[Resources](#)

Nested View 

[Add to Comparison](#) 

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
 Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		<input type="checkbox"/>
 All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		<input type="checkbox"/>
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## ASJ-Faced Fiberglass Board Insulation Common Product

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More about ASJ-Faced Fiberglass Board Insulation



[Common Contents](#)



[All Contents](#)






[Process Chemistry](#)

[Resources](#)

[About Common Products](#) 

Nested View ▾

[Add to Comparison](#) ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		<input type="checkbox"/>
▶ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
Polyethylene Terephthalate (PET) 25038-59-9	1.00%	1.00%	Adhesive	LT-UNK		<input type="checkbox"/>





Nested View ▾

Add to Comparison ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▼ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		<input type="checkbox"/>
Fiber glass, biosoluble and/or with alkaline oxide and alkali earth oxide content ≤18 % by weight 65997-17-3	84.37%	77.11%	Insulator	LT-UNK		<input type="checkbox"/>
Ⓣ Urea, polymer with formaldehyde and phenol 25104-55-6	14.78%	13.51%	Binder	LT-UNK		<input type="checkbox"/>
RESIDUAL OILS, PETROLEUM, SOLVENT-REFINED 64742-01-4	0.85%	0.78%	Dedusting Agent	LT-1		<input type="checkbox"/>
▶ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		<input type="checkbox"/>
Polyethylene Terephthalate (PET) 25038-59-9	1.00%	1.00%	Adhesive	LT-UNK		<input type="checkbox"/>



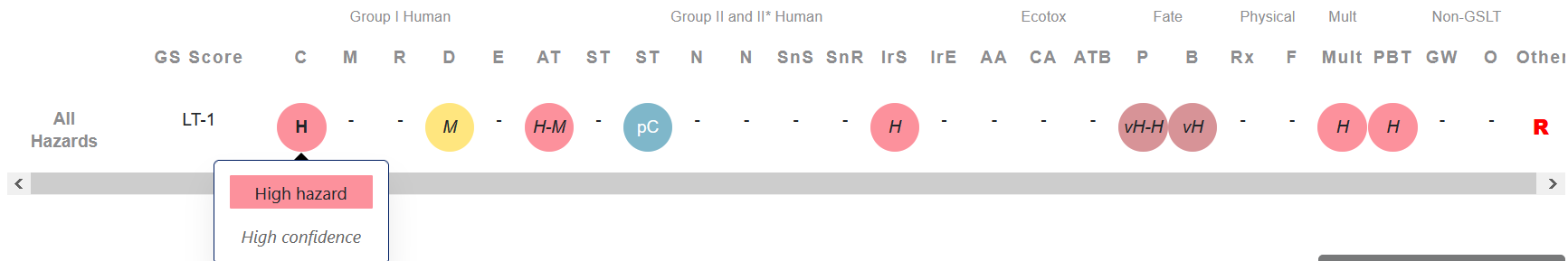


64742-01-4

## RESIDUAL OILS, PETROLEUM, SOLVENT-REFINED

ALSO CALLED Residual oils (petroleum), solvent-refined

View all synonyms (1)


[Share Profile](#)[Hazards](#)[Properties](#)[Functional Uses](#)[Process Chemistry](#)[Resources](#)All Hazards View ▼ Show PubMed Results[Request Assessment](#)[Add to Comparison](#) ▼

















## Hazard Lists

[Download Lists](#)

ENDPOINT	HAZARD LEVEL	GS SCORE	LIST NAME	HAZARD DESCRIPTION	OTHER LISTS
Carcinogenicity	<b>H</b>	LT-1	EU - Annex VI CMRs	Carcinogen Category 1B - Presumed Carcinogen based on animal evidence	
Developmental Toxicity incl.	<b>M</b>	LT-	GHS - Australia	H361d - Suspected of damaging the unborn child	

+4

 All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
Fiberglass 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input type="checkbox"/>
Aluminum 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input type="checkbox"/>
▼ Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.90%	0.74%	Adhesive	LT-UNK		<input type="checkbox"/>
 Halogenated Flame Retardants (HFRs)	24.08%	0.28%	Flame Retardant	NoGS		<input type="checkbox"/>
ANTIMONY TRIOXIDE 1309-64-4	11.02%	0.13%	Flame Retardant	BM-1		<input type="checkbox"/>
Polypropylene 9003-07-0	13.20%	1.00%	Coating	LT-UNK		<input type="checkbox"/> 

 All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
 Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
<b>Fiberglass</b> 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input type="checkbox"/>
<b>Aluminum</b> 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input type="checkbox"/>
  Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.90%	0.74%	Adhesive	LT-UNK		<input type="checkbox"/>
 Halogenated Flame Retardants (HFRs)	24.08%	0.28%	Flame Retardant	NoGS		<input type="checkbox"/>
ANTIMONY TRIOXIDE 1309-64-4	11.02%	0.13%	Flame Retardant	BM-1		<input type="checkbox"/>
 Polypropylene 9003-07-0	13.20%	1.00%	Coating	LT-UNK		<input type="checkbox"/>



▼ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
Fiberglass 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input type="checkbox"/>
Aluminum 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input type="checkbox"/>
▼ Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.00%	0.74%	Adhesive	LT-UNK		<input type="checkbox"/>
Halogenated Flame Retardants (HFRs)						<input type="checkbox"/>
ANTIMONY TRIOXIDE 1309-64-4			Retardant			<input type="checkbox"/>
Polypropylene 9003-07-0	13.20%	1.00%	Coating	LT-UNK		<input type="checkbox"/>

**SOURCES**

JM ASJ-4535 SDS JM ASJ-4535 TDS JM Patent 01   
Knauf Earthwool HPD

**NOTES**

The specific halogenated flame retardant used was not disclosed. This content is therefore linked to the compound group for halogenated flame retardants.



▼ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
<b>Fiberglass</b> 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input type="checkbox"/>
<b>Aluminum</b> 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input type="checkbox"/>
<b>Transformation Target</b>	15.08%	1.15%	Adhesive	BM-1		
HBN's Transformation Targets are chemical + product category combinations that are a high priority for avoidance. Halogenated flame retardants such as this one are a Transformation Target in the insulation category. To avoid these chemicals, avoid plastic foam insulation including board and spray-applied. If plastic foam insulation is used, look for those that are halogen-free. See our Hazard Spectrum and recommendations for insulation here.	64.90%	0.74%	Adhesive	LT-UNK		<input type="checkbox"/>
<b>T Halogenated Flame Retardants (HFRs)</b>	24.08%	0.28%	Flame Retardant	NoGS		<input type="checkbox"/>
<b>ANTIMONY TRIOXIDE</b> 1309-64-4	11.02%	0.13%	Flame Retardant	BM-1		<input type="checkbox"/>
<b>Polypropylene</b> 9003-07-0	13.20%	1.00%	Coating	LT-UNK		<input type="checkbox"/>





Nested View ▾

Add to Comparison ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		<input type="checkbox"/>
▼ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		<input type="checkbox"/>
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		<input type="checkbox"/>
Fiberglass 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input type="checkbox"/>
Aluminum 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input type="checkbox"/>
▼ Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		<input type="checkbox"/>
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.90%	0.74%	Adhesive	LT-UNK		<input type="checkbox"/>
Halogenated Flame Retardants (HFRs)	24.08%	0.28%	Flame	NoGS		<input type="checkbox"/>







Nested View ▾

Add to Comparison ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input checked="" type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		
▼ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
Fiberglass 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input checked="" type="checkbox"/>
Aluminum 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input checked="" type="checkbox"/>
▼ Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.90%	0.74%	Adhesive	LT-UNK		<input checked="" type="checkbox"/>
Halogenated Flame Retardants (HFRs)	24.08%	0.28%	Flame	NoGS		<input checked="" type="checkbox"/>





Nested View ▾



Add to Comparison ▾

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		
▼ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		
▶ Kraft Paper - Bleached	37.67%	2.87%	Structure Component	LT-1		
Fiberglass 65997-17-3	18.16%	1.38%	Structure Component	LT-UNK		<input checked="" type="checkbox"/>
Aluminum 7429-90-5	15.89%	1.21%	Vapor Barrier	BM-1		<input checked="" type="checkbox"/>
▼ Adhesive in All Service Jacket	15.08%	1.15%	Adhesive	BM-1		
Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	64.90%	0.74%	Adhesive	LT-UNK		<input checked="" type="checkbox"/>
Halogenated Flame Retardants (HFRs)	24.08%	0.28%	Flame	NoGS		<input checked="" type="checkbox"/>



## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

*This information reflects our best understanding of product composition in 2019.*

Fiberglass board insulation is made from inorganic glass fibers that are typically held together with a phenol-formaldehyde binder, and formed into rigid rectangular boards. Up to 53% of the product comes from recycled content. It is frequently...

More about ASJ-Faced Fiberglass Board Insulation



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- All Contents**
- Process Chemistry
- Resources

**i About Common Products**

This is not necessarily representative of all possible content that may be found in this product type. [Learn more](#)

**Add to Comparison**

### Binder *in Fiberglass Board Insulation*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<span>T</span> <span>C</span> Urea, polymer with formaldehyde and phenol 25104-55-6	LT-UNK	<span>i</span>	<input type="checkbox"/>
Carbohydrate-based binder	<span>?</span>	<span>i</span>	<input type="checkbox"/>



### Deducting Agent *in Fiberglass Board Insulation*



### Vapor Barrier *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Aluminum 7429-90-5	BM-1	<b>i</b>	<input type="checkbox"/>

### Adhesive *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	LT-UNK	<b>i</b>	<input type="checkbox"/>
Natural rubber 9006-04-6	LT-UNK	<b>i</b>	<input type="checkbox"/>
Polyvinyl alcohol 9002-89-5	LT-UNK	<b>i</b>	<input type="checkbox"/>

### Flame Retardant *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
------	----------	---------	--------------------------





## Vapor Barrier *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Aluminum 7429-90-5	BM-1	<b>i</b>	<input type="checkbox"/>



## Adhesive *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	LT-UNK	<b>i</b>	<input type="checkbox"/>
Natural rubber 9006-04-6	LT-UNK	<b>i</b>	<input type="checkbox"/>
Polyvinyl alcohol 9002-89-5	LT-UNK	<b>i</b>	<input type="checkbox"/>



## Flame Retardant *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
------	----------	---------	--------------------------





## Vapor Barrier *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Aluminum 7429-90-5	BM-1	<b>i</b>	<input type="checkbox"/>



*Adhesive in All Service Jacket > Adhesive in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
<b>C</b> Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	LT-UNK	<b>i</b>	<input type="checkbox"/>
Natural rubber 9006-04-6	LT-UNK	<b>i</b>	<input type="checkbox"/>
Polyvinyl alcohol 9002-89-5	LT-UNK	<b>i</b>	<input type="checkbox"/>





*Flame Retardant in All Service Jacket > Adhesive in All Service Jacket*



NAME	GS SCORE	SOURCES	<input type="checkbox"/>
------	----------	---------	--------------------------








## Vapor Barrier *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
 Aluminum 7429-90-5	BM-1		<input type="checkbox"/>



*Adhesive in All Service Jacket > Adhesive in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
  Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	LT-UNK		<input type="checkbox"/>
Natural rubber 9006-04-6	LT-UNK		<input type="checkbox"/>
Polyvinyl alcohol 9002-89-5	LT-UNK		<input type="checkbox"/>





*Flame Retardant in All Service Jacket > Adhesive in All Service Jacket*



NAME	GS SCORE	SOURCES	<input type="checkbox"/>
------	----------	---------	--------------------------








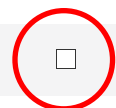
## Vapor Barrier *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
 Aluminum 7429-90-5	BM-1		<input type="checkbox"/>



## Adhesive *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
  Benzene, ethenyl-, polymer with 1,3-butadiene 9003-55-8	LT-UNK		<input type="checkbox"/>
Natural rubber 9006-04-6	LT-UNK		<input type="checkbox"/>
Polyvinyl alcohol 9002-89-5	LT-UNK		<input type="checkbox"/>



## Flame Retardant *in All Service Jacket* > Adhesive *in All Service Jacket*

NAME	GS SCORE	SOURCES	<input type="checkbox"/>
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## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

*This information reflects our best understanding of product composition in 2019.*

Fiberglass board insulation is made from inorganic glass fibers that are typically held together with a phenol-formaldehyde binder, and formed into rigid rectangular boards. Up to 53% of the product comes from recycled content. It is frequently...

[More about ASJ-Faced Fiberglass Board Insulation](#)

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- [Common Contents](#)
- [All Contents](#)
- [Process Chemistry](#)
- [Resources](#)**

### HBN Resources (1)

TYPE	TITLE
Tool	Insulation Hazard Spectrum

### Sources

SOURCE	UPLOADED DOCUMENT	LINKED DOCUMENT
Abby		
Biorresources		



## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

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- Common Contents
- All Contents
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### → HBN Resources (1)

TYPE	TITLE
✂ Tool	Insulation Hazard Spectrum

### → Sources

SOURCE	UPLOADED DOCUMENT	LINKED DOCUMENT
Abby		
Biorresources		



## Sources



SOURCE	UPLOADED DOCUMENT	LINKED DOCUMENT
Abby		
Bioresources		
Buy Insulation		
Cargill		
Cellophane		
CertainTeed CertaPro SDS		
CertainTeed CertaPro TDS		
CertainTeed Patent		
Deca BDE Federal Register		
Earthwool EPD		
Fortfiber		
Gelest		
GLT ASJ Facing Tape		
GLT ASJ Facing Tape MSDS		





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Fiberglass board insulation is made from inorganic glass fibers that are typically held together with a phenol-formaldehyde binder, and formed into rigid rectangular boards. Up to 53% of the product comes from recycled content. It is frequently used to insulate HVAC ductwork, plenums, and industrial equipment. It can be installed either on the interior or exterior of ductwork, but products installed on ductwork interiors contain a protective coating, known as air stream surfacing and are beyond the scope of this CP. In addition to providing thermal insulation in areas where the carried air is cooler or warmer than the ambient air surrounding the ductwork, it also provides acoustical insulation, damping the noise of the HVAC system as well as cutting down on cross-talk. Fiberglass board insulation can be used in a variety of other applications such as interior acoustics and ceilings. At least two products currently available are marketed for use in exterior walls, and one is marketed for roof paneling systems. The insulation is manufactured unfaced or with a vapor barrier such as an all service jacket (ASJ) or foil-scrim kraft (FSK) facing. This Common Product focuses on fiberglass board insulation with an ASJ facing. At least one manufacturer offers a formaldehyde-free product.

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[Process Chemistry](#)

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Nested View

[Add to Comparison](#)

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1	<a href="#">i</a>	<input type="checkbox"/>
▶ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1	<a href="#">i</a>	<input type="checkbox"/>





## ASJ-Faced Fiberglass Board Insulation Common Product

MasterFormat 07 21 13.16 Fibrous Board Insulation; 09 81 13 Acoustic Board Insulation; 23 07 00 HVAC Insulation; 23 07 13 Duct Insulation; 23 07 16 HVAC Equipment Insulation

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Hide Full Description

Common Contents

All Contents

Process Chemistry

Resources

Nested View

Add to Comparison

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
▶ Fiberglass Board Insulation	91.39%	91.39%	Insulation	LT-1		
▶ All Service Jacket	7.61%	7.61%	Vapor Retarder	BM-1		





## Low VOC Eggshell Acrylic Paint

**Common Product**




MasterFormat 09 91 23 Interior Painting

*This information reflects our best understanding of product composition in 2019.*

Acrylic paints can be used for both exterior and interior applications. "Acrylic" is a broad term that describes several polymers, and acrylic paint formulations vary from 100% acrylic, to a mixture of acrylic, vinyl acrylic, and styrene polymers. This Common Product (CP) describes a white, low-VOC acrylic paint, with a medium sheen (approximately eggshell), that could be used for coating interior surfaces. Low VOC paints included in the scope of this CP contain less than 50 g/L VOCs as defined by the California South Coast Air Quality Management District's (SCAQMD) Rule 1168. This rule is specific to VOCs that contribute to smog formation, thus some chemicals carrying health hazards could be present but would not be counted toward the 50 g/L VOC limit. This CP does not include any colorants that would be added to the paint before its application. These can have a significant impact on the total VOC content of a tinted paint. Historically alkylphenol ethoxylates (APEs) have been used as surfactants in acrylic paints. This group of chemicals includes nonylphenol ethoxylates (NPEs) and octylphenol ethoxylates (OPEs). NPEs, OPEs, and their breakdown products have all been shown to have endocrine disrupting properties. This research found that some low VOC acrylic paints still contain APEs, but they were not found to be the most common surfactants used among the products surveyed. These findings suggest that the market may be shifting away from the use of APEs in low VOC eggshell acrylic paints.

A historical version of this Common Product is available here: <https://pharosproject.net/common-products/2203415>

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NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	
Water 7732-18-5	44.43%	44.43%	Solvent	BM-4		





## Low VOC Eggshell Acrylic Paint

**Common Product**

MasterFormat 09 91 23 Interior Painting

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**Common Contents**

All Contents

Process Chemistry

Resources

Nested View **Add to Comparison** 

NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	
Water 7732-18-5	44.43%	44.43%	Solvent	BM-4		





## Low VOC Eggshell Acrylic Paint

Common Product

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[Process Chemistry](#)
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NAME	% WT PART	% WT WHOLE	FUNCTION	GS SCORE	SOURCES	<input type="checkbox"/>
Water 7732-18-5	44.43%	44.43%	Solvent	BM-4	<span>i</span>	<input type="checkbox"/>





# Common Products Can also Be Used to...

- Provide a Baseline for Comparison
- Identify Gaps in Disclosure
- ...And More



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# Thank You