

BACTERICIDE AVEL + - 4537008
SAFETY DATA SHEET
(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : BACTERICIDE AVEL +
Code produit:4537008

UFI: WHJD-R0MX-P00M-A7FM

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

1.3. Details of the supplier of the safety data sheet Registered

company name : AVEL.

Address : 15 Route de L'Océan 16320 Magnac Lavalette.France.

Telephone : 05 45 64 74 74 Fax : 05 45 64 77 36

avel@avel.com www.avel.com

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA <http://www.centres-antipoison.net>.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Aerosol, Category 1 (Aerosol 1, H222 - H229).

This mixture does not present a health hazard with the exception of possible occupational exposure thresholds (see paragraphs 3 and 8).

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

Biocidal mixture (see section 15).

Mixture for aerosol application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :



GHS02

Signal Word :

DANGER

Hazard statements :

H222 Extremely flammable aerosol.

H229 Pressurised container: May burst if heated.

Precautionary statements - General :

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

Precautionary statements - Prevention :

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use.

P260 Do not breathe spray.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

Precautionary statements - Storage :

P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

Precautionary statements - Disposal :

P501 Dispose of contents/container according to the local rules.

Other information :

Do not use the product in another way of what it is intended to. Use and store only in a well-ventilated area. Do not spray for a long time.

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2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) $\geq 0.1\%$ published by the European Chemicals Agency (ECHA) under article 57 of REACH: <http://echa.europa.eu/fr/candidate-list-table>

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
INDEX: 601-004-00-0 CAS: 106-97-8 EC: 203-448-7 BUTANE	GHS02, GHS04 Dgr Flam. Gas 1, H220	C [1] [7]	$10 \leq x \% < 25$
INDEX: 603_002_005A CAS: 64-17-5 EC: 200-578-6 REACH: 01-2119457610-43 ETHANOL	GHS07, GHS02 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319	[1]	$10 \leq x \% < 25$
INDEX: 601-004-00-0 CAS: 75-28-5 EC: 200-857-2 AND ISOBUTANE	GHS02, GHS04 Dgr Flam. Gas 1, H220	C [1] [7]	$2.5 \leq x \% < 10$
INDEX: 601-003-00-5 CAS: 74-98-6 EC: 200-827-9 PROPANE	GHS02, GHS04 Dgr Flam. Gas 1, H220	[1] [7]	$2.5 \leq x \% < 10$
INDEX: 007-010-00-4 CAS: 7632-00-0 EC: 231-555-9 REACH: 01-2119471836-27 SODIUM NITRITE	GHS03, GHS06, GHS09 Dgr Ox. Sol. 3, H272 Acute Tox. 3, H301 Aquatic Acute 1, H400 M Acute = 1		$0 \leq x \% < 2.5$
INDEX: 604_020_00_6 CAS: 90-43-7 EC: 201-993-5 REACH: 01-2119511183-53 2-PHENYLPHENOL (ISO)BIPHENYL-2-OL	GHS07, GHS09 Wng Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[1]	$0 \leq x \% < 2.5$

(Full text of H-phrases: see section 16)

Information on ingredients :

Substances may not have a REACH Registration No.. because they are manufactured / imported in quantities less than 1 ton / year, or they are complex substances or they are exempted from registration under REACH.

[7] Propellant gas

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In case of massive inhalation transport the patient outdoors and keep him for the warmth and for the rest.

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Consult doctor if symptoms develop.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

To be translated (XML)

In the event of splashes or contact with skin :

To be translated (XML)

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

No data available.

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

Specific and immediate treatment :

No data available.

Information for the doctor :

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- halon
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO₂)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

5.3. Advice for firefighters

Due to the toxicity of the gas emitted on thermal decomposition of the products, fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

Cool endangered receptacles with water spray.

Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

For first aid worker

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First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

See Section 7 for information on safe handling.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not breathe in aerosols.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities Store receptacle in a well ventilated area.

Store in cool, dry conditions in well sealed receptacles.

Storage

Keep out of reach of children.

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- ACGIH TLV (American Conference of Governmental Industrial Hygienists, Threshold Limit Values, 2010) :

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CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	1000 ppm				
64-17-5		1000 ppm		A3	
75-28-5	1000 ppm				
74-98-6	1000 ppm				

- Germany - AGW (BAuA - TRGS 900, 29/01/2018) :

CAS	VME :	VME :	Excess	Notes
106-97-8		1000 ppm 2400 mg/m ³		4(II)
64-17-5		500 ppm 960 mg/m ³		2(II)
75-28-5		1000 ppm 2400 mg/m ³		4(II)
74-98-6		1000 ppm 1800 mg/m ³		4(II)
90-43-7		5 E mg/m ³		1(I)

- France (INRS - ED984 :2016) :

CAS	VME-ppm :	VME-mg/m ³ :	VLE-ppm :	VLE-mg/m ³ :	Notes :	TMP No :
106-97-8	800	1900	-	-	-	-
64-17-5	1000	1900	5000	9500	-	84

- UK / WEL (Workplace exposure limits, EH40/2005, 2011) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	600 ppm 1450 mg/m ³	750 ppm 1810 mg/m ³		Carc	
64-17-5	1000 ppm 1920 mg/m ³	- ppm - mg/m ³			

Derived no effect level (DNEL) or derived minimum effect level (DMEL): SODIUM

NITRITE (CAS: 7632-00-0)

Final use:

Exposure method:
Potential health effects:

DNEL :

Exposure method:
Potential health effects:

DNEL :

Workers.

Inhalation.
Short term systemic effects.
2 mg of substance/m³

Inhalation.
Short term systemic effects.
2 mg of substance/m³

ETHANOL (CAS: 64-17-5)

Final use:

Exposure method:
Potential health effects:

DNEL :

Exposure method:
Potential health effects:

DNEL :

Workers.

Dermal contact.
Long term systemic effects.
343 mg/kg body weight/day

Inhalation.
Long term systemic effects.
950 mg of substance/m³

Final use:

Exposure method:
Potential health effects:

Consumers.

Ingestion.
Long term systemic effects.

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DNEL :	87 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	206 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	114 mg of substance/m3

Predicted no effect concentration (PNEC):

SODIUM NITRITE (CAS: 7632-00-0)

Environmental compartment:	Soil.
PNEC :	0.001 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.005 mg/l
Environmental compartment:	Sea water.
PNEC :	0.006 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	0.005 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	0.019 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	0.022 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	21 mg/l

ETHANOL (CAS: 64-17-5)

Environmental compartment:	Soil.
PNEC :	0.63 mg/kg
Environmental compartment:	Fresh water.
PNEC :	0.96 mg/l
Environmental compartment:	Sea water.
PNEC :	0.79 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	2.75 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	3.6 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	2.9 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	580 mg/l
Environmental compartment:	Vermivore predators (oral).
PNEC :	0.38 mg/kg

8.2. Exposure controls

Personal protection measures, such as personal protective equipment Use personal protective equipment that is clean and has been properly maintained.

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Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- PVA (Polyvinyl alcohol)

Let the glove manufacturer advise you on the choice of gloves and their duration of use for your operating conditions

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protectionCategory : - FFP1

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- AX

Particle filter according to standard EN143 :

- P1

Types, classes and filters for respiratory protection above are recommended in case of confrontation at concentrations higher than the exposure limits specified under 8.1. (Control parameters) .They should be adjusted according to actual conditions. they may not be necessary if the product is used outdoors or in a well ventilated area.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on
basic physical and
chemical
propertiesGeneral
information :**

Physical state : Fluid liquid.
Spray.

Important health, safety and environmental information

pH :	Not relevant.
Boiling point/boiling range :	Not specified.
Vapour pressure (50°C) :	Not relevant.
Density :	< 1
Water solubility :	Insoluble.
Viscosity:	$\nu < 7 \text{ mm}^2/\text{s}$ (40°C)
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.
Chemical combustion heat :	Not specified.
Inflammation time :	Not specified.
Deflagration density :	Not specified.
Inflammation distance :	Not specified.
Flame height :	Not specified.
Flame duration :	Not specified.

**9.2. Other
information**

VOC (% w/w) : 59.95

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SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- heating
- heat

10.5. Incompatible

materials No data available.

10.6. Hazardous

decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO₂)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Splashes in the eyes may cause irritation and reversible damage

11.1.2. Mixture

Skin corrosion/skin irritation :

Based on available data; the classification criteria are not met.

Serious damage to eyes/eye irritation :

Based on available data the classification criteria are not met.

Respiratory or skin sensitisation :

To be translated (XML)

Germ cell mutagenicity :

Based on available data; the classification criteria are not met.

Carcinogenicity :

Based on available data; the classification criteria are not met.

Reproductive toxicant :

Based on available data; the classification criteria are not met.

Specific target organ systemic toxicity - single exposure :

Based on available data; the classification criteria are not met.

Specific target organ systemic toxicity - repeated exposure :

Based on available data; the classification criteria are not met.

Aspiration hazard :

Based on available data; the classification criteria are not met.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

No further relevant information available.

Other information

No further relevant information available.

Monograph(s) from the IARC (International Agency for Research on Cancer) :

CAS 64-17-5 : IARC Group 1 : The agent is carcinogenic to humans.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

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2-PHENYLPHENOL (ISO)BIPHENYL-2-OL (CAS: 90-43-7)

Crustacean toxicity :

EC50 = 2.7 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

EC50 mg/l

Species : Daphnia magna

Duration of exposure : 48 h

NOEC = 0.008 mg/l

Factor M = 1

Species : Daphnia magna

Duration of exposure : 21 days

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

12.2.1. Substances

2-PHENYLPHENOL (ISO)BIPHENYL-2-OL (CAS: 90-43-7)

Biodegradability :

Rapidly degradable.

12.3. Bioaccumulative potential

12.3.1. Substances

2-PHENYLPHENOL (ISO)BIPHENYL-2-OL (CAS: 90-43-7)

Octanol/water partition coefficient : log K_{ow} = 3

Bioaccumulation :

BCF = 22

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2019).

14.1. UN number

1950

14.2. UN proper shipping name

UN1950=AEROSOLS, flammable

14.3. Transport hazard class(es)

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- Classification :



2.1

14.4. Packing group

-

14.5. Environmental hazards

-

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5F	-	2.1	-	1 L	190 327 344 625	E0	2	D
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	2	See SP63	-	See SP277	F-D, S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	2.1	2.1	-	203	75 kg	203	150 kg	A145 A167 A802	E0	
	2.1	2.1	-	Y203	30 kg G	-	-	A145 A167 A802	E0	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code No
data available.

SECTION 15 : REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- Directive 75/324/CEE modified by directive 2013/10/UE
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2018/1480 (ATP 13)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2019/521 (ATP 12)

- Container information:

No data available.

- Particular provisions :

No data available.

- Labelling for biocidal products (Regulation 1896/2000, 1687/2002, 2032/2003, 1048/2005, 1849/2006, 1451/2007 and Directive 98/8/EC)
:

Name	CAS	%	Product-type
ETHANOL	64-17-5	161.123 g/l	02
2-PHENYLPHENOL (ISO)BIPHENYL-2-OL	90-43-7	1.85 g/l	02

Product-type 2 : Disinfectants and algacides not intended for direct application to humans or animals.

15.2. Chemical safety assessment

The chemical safety assessment has not been carried out for this mixture.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

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The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H272	May intensify fire; oxidiser.
H301	Toxic if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

Abbreviations :

DNEL : Derived No-Effect Level

PNEC : Predicted No-Effect Concentration

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

WGK : Wassergefährdungsklasse (Water Hazard Class).

GHS02 : Flame

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.